



FOUNDATION FOR THE FUTURE

*A White Paper on
a Community College
System for Nova Scotians*

Province of
Nova Scotia

February 1988

FOREWORD

As technological advances and structural changes in our economy continue to impact on the workplace, the education and training programs that prepare Nova Scotians for work must adapt accordingly.

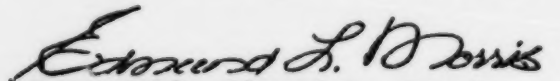
Foundation for the Future -A White Paper on a Community College System for Nova Scotians - outlines the basic framework for a new education and training system that will enable Nova Scotians to meet the challenges of today's and tomorrow's labour market.

The White Paper is the culmination of almost two years of study and public consultation with the aim of making recommendations that will assist in Nova Scotia's transition to an information economy. In two important respects, the White Paper fulfills the expectations for future success.

First, in its focus on lifelong learning, the White Paper acknowledges the importance of anticipating change. By providing the framework for more access by Nova Scotians to a wide range of programs - trades, technical, applied arts, avocations - the White Paper recognizes the need to provide opportunities for Nova Scotians continuously to upgrade and update their education achievements and work skills in order to remain competitive in a changing world economy. In the future, employers and employees will have to be flexible and able to adapt to changing work environments and new occupational fields.

Second, with its emphasis on responding to community needs, the White Paper acknowledges the unique role that a Community College system can play in meeting community aspirations. The colleges will be responsible in part to the communities which they serve. As their resources are available to workers and employers, groups and individuals alike, the colleges stand ready to play an important part in community development.

Much of Nova Scotia's current occupational education and training system has been in place for over 20 years. It has worked well over that period in meeting the needs of the times. The Community College System outlined in this White Paper will enable Nova Scotians to meet the challenges of the future with a firm and responsive foundation on which to build their aspirations.


Honourable Edmund L. Morris
Minister of Advanced Education
and Job Training

EXECUTIVE SUMMARY

This White Paper represents the culmination of two years of discussion, debate and public hearings on a Community College system for Nova Scotia. During this period, almost two hundred groups and individuals made submissions and participated in thirteen public hearings. A Green Paper embodying the proposals was then distributed for discussion purposes and elicited written comments from many of the original participants and other interested parties as well as lively and informed debate at public meetings and open forums.

The Green Paper generally received widespread support. People from all parts of society and all parts of Nova Scotia agreed that a Nova Scotia Community College system should be established with a mission to educate and train youth and adults so that they could be, in the words of Warden Laurence Nason, President of the Union of Nova Scotian Municipalities, 'citizens who have the character as well as the knowledge and skill to make a contribution to the economic and social development of the community.'

This White Paper sets out the essentials of how this will be done.

Obviously, many issues raised during the discussion phase, both in written submissions and during public debate, will require further discussion and negotiation between the parties involved, and others are by their nature best considered during the organization and implementation phase and cannot be definitively dealt with in this paper.

The highlights of the White Paper are briefly described in this Executive Summary. Page references indicate where more detailed information is to be found in the body of the text.

OBJECTIVE

The role of the Department of Advanced Education and Job Training is that of ensuring high-quality, accessible vocational, technical and university education for Nova Scotians, young and old, with a focus on lifelong learning.

Consequently, to enhance the delivery of trades, technical and technological training, and the coordination of other types of education and training, the Government will establish a Community College system, to be known as the 'Nova Scotia Community College'. Particular attention will be given to meeting the needs of Nova Scotians who were identified during the hearings as likely to 'fall through the cracks' of the existing educational system and to giving them access to the training and

education they require to be productive and to maximize their potential (pp.30-32).

Working in cooperation, though with distinct mandates, the Community College system and the university system will together ensure the broadest possible range of training and education opportunities for Nova Scotians.

ORGANIZATION

The Nova Scotia Community College will comprise seven colleges, six regional and one francophone. Each college will have a board that is representative of the community of persons it serves, including representation from employers, labour, instructional staff, students, and groups within the community.

Existing institutions will be grouped into six colleges under the regional boards. The francophone college will be a coordinating mechanism that can be described as a 'college without walls' (pp. 42-49).

Each board will establish appropriate mechanisms to ensure public input into policy making. The chairpersons of the college boards, appropriate members of the Provincial public service and others and the Deputy Minister of Advanced Education and Job Training, who will serve as chairperson, will form the

Province-wide Community College Advisory Board. This Board will advise the Minister and Government on general Community College policy.

Vocational and technical training divisions of the Department of Advanced Education and Job Training will be regrouped to provide administrative support for the Community College.

Administrative responsibility will be divided between the individual colleges and the Department. The boards will be responsible for the management of the individual colleges in accordance with budgets which they prepare, subject to annual approval by the Department. Each college will develop courses and programs in response to the needs of the people it serves; the Department will be responsible for overall policy for the Community College and ensure that College-wide training and educational standards are set and maintained.

In each college, Community Education and Training Officers will work with local employers and others to develop customized courses. The colleges will retain the revenue from these courses. The Community Education and Training Officers will also be responsible for helping universities which wish to provide extension courses, which will be encouraged, using Community College facilities (p.53).

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The establishment of a Community College Enterprise Agency to market Community College informational and instructional packages worldwide will also be encouraged (p.52).

STUDENTS

The mandate of the Community College system will be to provide training and educational opportunities, both full and part-time, to all Nova Scotians. The focus will be on lifelong learning (p. 55).

The College will provide training and education to students with or without grade XII graduation who enter directly from school or at other times in their lives (p. 57).

Career counselling services are essential and must be expanded to assist applicants in exploring the full range of educational and training opportunities available to them through the Community College system. These will help the student develop an appropriate life career plan. The counselling services will also help in the development of job-seeking skills.

To maximize access and utilization of Community College programs and resources, information on applications and courses will be provided to all parties in the system (pp. 57-67).

A system of financial assistance will be reviewed by the Advisory Committee on Financial Assistance for Students (pp. 64-65).

PROGRAMS

As a college mandated to provide education and training to a wide range of students of all ages and abilities, the Community College will provide - or provide facilities for - a wide range of courses.

- (a) **Upgrading** - remedial courses to help students make up grades or parts of grades or which teach literacy. Applicants requiring upgrading will be provided with appropriate courses (pp. 68-72).
- (b) **Trades Training** - all training in the apprenticed trades will be consolidated into a uniform system of delivery, with the College providing the classroom portion of the training (pp. 73-80).
- (c) **Applied Arts** - programs in the applied arts and non-apprenticed trades will be offered, employing a variety of teaching methods (pp. 81-82).
- (d) **Technical and Technological Training** - technical institutes, while part of individual colleges, will continue to serve

the whole Province. However, to strengthen the program bases of the regional campuses, elements of technical courses will be taught at various institutions (pp. 82-86).

- (e) **University Credit** - colleges will provide opportunities for universities which wish to do so to conduct extension courses in the colleges' physical facilities. In consultation with the universities, bridging programs will be developed to assist students to transfer from one system to the other and a Transfer Committee with representation from universities and the Community College will be established (pp. 87-93).
- (f) **Community-Based Education** - colleges will provide customized training for local employers and others for a fee. Colleges will provide facilities for community groups wishing to give avocational courses, the costs to be recovered from course fees. Colleges will facilitate the offering of courses given by non-profit groups and agencies as affiliated courses of the Community College; standards will be maintained as in other courses offered by the College (pp. 93-99).
- (g) **Targeted Courses** - colleges will be encouraged to consult with representative groups and to develop with them courses that respond to the particular needs of women in non-traditional trades or occupations, francophones, disabled

persons and minority groups, particularly Nova Scotia black and MicMac citizens (pp. 100-101).

Greater opportunities for co-op study will be made available for students in appropriate Community College programs (pp. 81-82,83).

To facilitate continuous education, the Department will continuously gather information concerning the latest developments and techniques in the trades and occupations taught in the Community College. This information will be provided to College graduates and instructors seeking to upgrade and update their knowledge through videocassettes, software packages, educational television and lending libraries. The information packages will be available for a fee to employers and others (pp. 101-103).

College boards will be encouraged to consider distance education and other advances (p. 63).

Subject to approval by the Department of Advanced Education and Job Training, uniform standards will be set by Standards Committees consisting of persons who earn their living in the field, Department staff and teachers from each college that offers the subject. It is intended that these Province-wide Committees will replace Trades Advisory Committees. In the

development and delivery of programs to uniform standards, college staff and administrators will be able to call upon Subject Assessors for expert advice and assistance. Assessors will be persons who earn their living in the occupation on which their advice is sought, and will be on a form of retaining contract to the Department as Assessors. College-wide standards will be ensured by a cyclical review of programs initiated by the Standards Committees and involving the Subject Assessors (pp. 108-117).

A Human Resource Development Plan will be implemented to ensure the smoothest possible adjustment of instructional and support staff to the new Community College system including the provision of opportunities to teaching staff to update their knowledge of their subject by workforce experience and further education (pp. 115-117, 129-130).

RESOURCES AND FINANCING

Given greater flexibility in programming and more effective utilization, the existing occupational education system and its resources are in a position to respond effectively to a reasonable increase in student population, a more open admissions policy and an increase in the range of programs offered (pp. 118-121).

It is recognized that the Community College system will need moderate additional funding as it responds to increasing numbers of Nova Scotians and increasing educational aspirations. The Government further recognizes that this moderate additional funding ought not to be provided at the expense of other parts of the total educational system of the Province (pp. 121-129).

During the organization and implementation phase, priority will be given to a careful review of various methods for funding the system. It is noted that the Community College Study Committee felt that the most practicable funding method for a system with programs standardized Province-wide would be one based on average program cost. Standards Committees would calculate average cost of providing each program to a certain minimum number of students. Cost would include salaries and equipment costs, including depreciation. Operating budgets for each regional college would therefore be basically the total of the average cost of every program the college offered, with adjustments for student numbers and a grant for discretionary spending to enrich courses (pp. 130-137).

IMPLEMENTATION

The implementation of the organizational pattern herein described is intended to be completed within a three-year period commencing immediately, with program development, expansion and

enrichment to take place as quickly as individual organizational structures are ready. Committees will be established to make recommendations on a wide range of operational issues relating to the implementation phase of the Community College. These committees will confer with interested parties during the implementation phase. Continuing opportunity will be given for public input as the system evolves, and in any event the Nova Scotia Community College Advisory Board will be asked to provide Government with a further report after the end of the third year.

The overall objective is the development of a Community College system which, taken together with public school and university educational opportunities, will provide Nova Scotians with unexcelled educational opportunities leading up to the twenty-first century.

TABLE 1
COMMUNITY COLLEGE ADMINISTRATIVE STRUCTURE

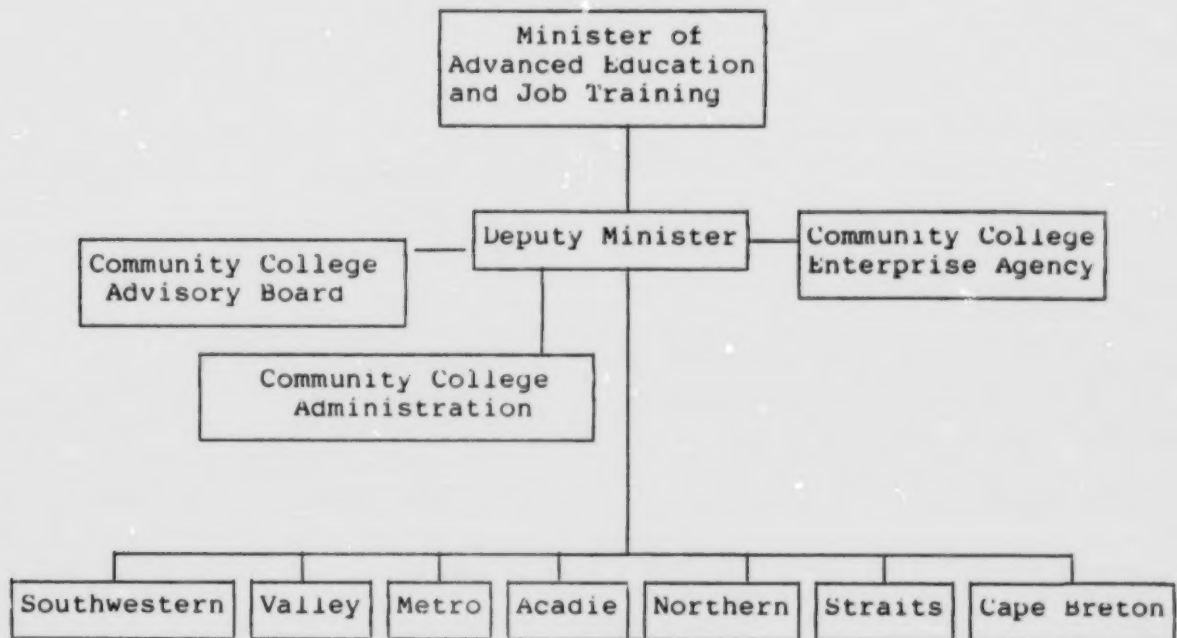


TABLE 2
COMMUNITY COLLEGE ORGANIZATION

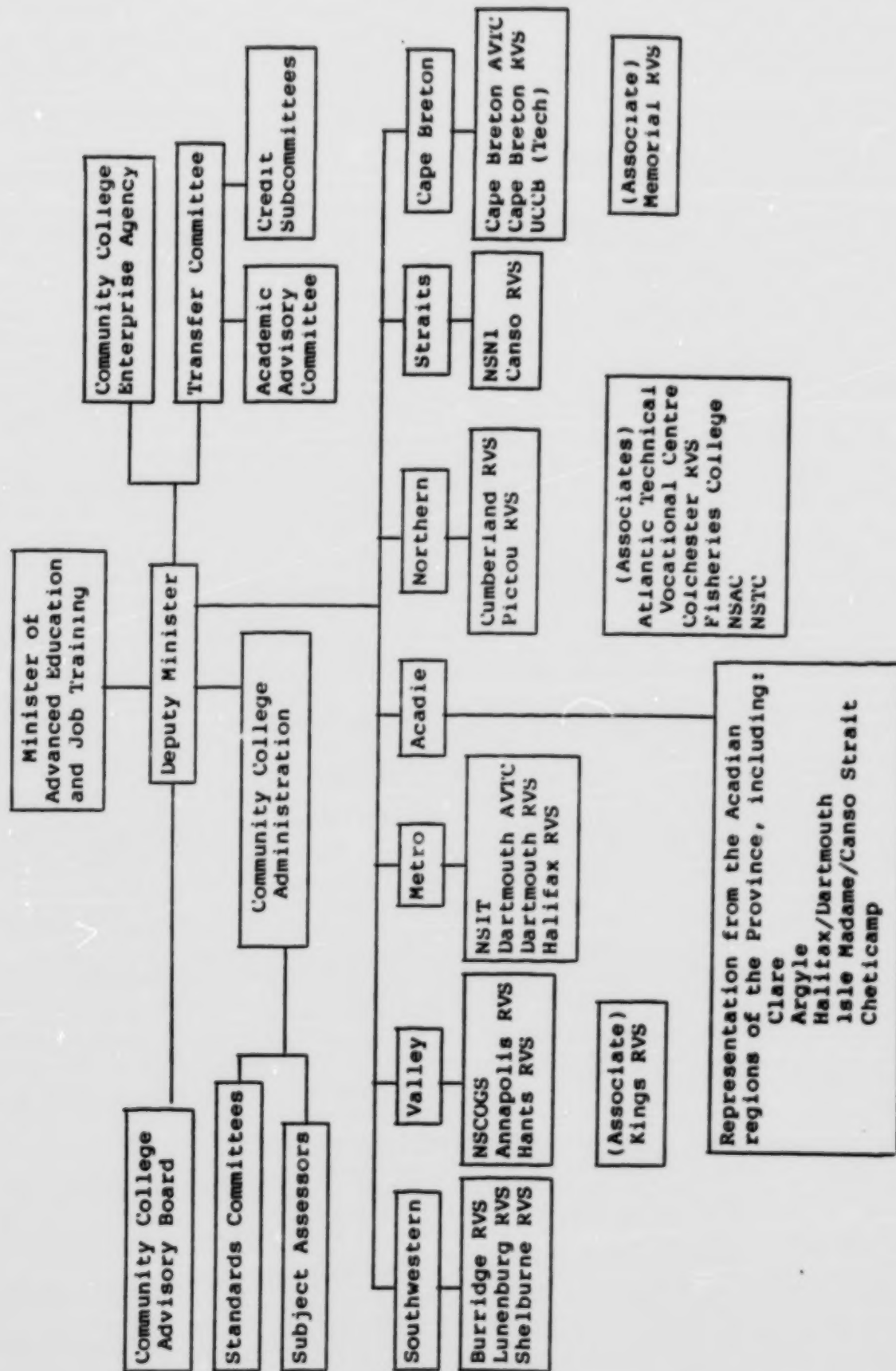


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1. INTRODUCTION

1. Reasons for the Community College Study

In the Throne Speech of 27 February 1986, the Government of Nova Scotia announced its intention to examine the delivery of trades, technical and technological training with a view to developing a community college system in the Province. This system would incorporate the existing vocational schools and technological institutes that currently provide occupational training to Nova Scotians.

In making this announcement, the Government did not intend adverse criticism of the existing schools and institutions. It recognized that the schools and institutes offer many good programs taught by well-trained staff. As the 1984 White Paper on Economic Development observed, 'Nova Scotia's many training facilities and educated labour force are significant assets.'

Rather, the Government's intention was constructive. It recognized that a good system of occupational education could be made even better through improvements and modifications adapted to the changes in technology and the labour market that have occurred in recent years. Given constant change in the economic environment, only constant improvement and modification of programs and delivery systems will ensure that the Department of Advanced Education and Job Training can meet

its primary objective, 'to ensure that Nova Scotians are provided with the training and skills they need to fulfil their career aspirations, while meeting the needs of the labour market.'

(a) The Challenge of Change in the Workplace

The design and structure of the current system of schools and institutes were developed largely in the 1960s. Since that time, however, there have been significant changes in the rate of economic growth, economic structure, technology, demography and the nature of the labour market.

The rates of economic growth in the 1980s are well below the rapid rates experienced in the 1960s and the 1970s. Consequently, competition for jobs is keener than it was. If Nova Scotians are to compete in the labour market, they must be as well trained as possible in the skills required.

Furthermore, during the past twenty-five years there has been a substantial change in economic structure. Just as in the last century there was a shift in employment from agriculture to industry, so now employment has moved from industry to the service sector at both the provincial and national levels.

At the same time, changing technology has created new types of jobs and has even caused some occupations to disappear. Advanced forms of computerized information

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processing have stimulated the development of robotics, telecommunications, biotechnology and materials science and have had a striking impact on all economic sectors, everywhere in the world.

Despite these developments, however, it must be remembered that the major source of new job openings in Nova Scotia over the next decade will be attrition in existing occupations, and not the growth of high-tech industries. Workers retire or move to other jobs, creating openings for people already in the workforce or just entering it. Yet the existing occupations have also experienced the impact of the new technology. Within the past few years, for instance, knowledge of wordprocessing and microcomputer software has become part of secretaries' normal qualifications, while fishermen on freezer factory trawlers have had to learn to use increasingly sophisticated, automated equipment.

Hence, the occupational education system must not only train students for jobs in the new industries created by technological and economic change, but also train or retrain them in the new skills required by existing occupations.

Retraining, along with upgrading and updating, will become especially important functions of the occupational education system, largely because of the increasing average

age of the Nova Scotian workforce. Projections derived from the 1981 census suggest that the youth population (ages 15 to 24) in Nova Scotia will decline by 19% in the period 1985 through 1995. At the same time, the 30 to 54 age group is expected to increase by 25.6%. Within this group, the 40 to 54 subgroup will increase by no less than 37.3%. For the older worker in a rapidly changing technical environment, retraining and updating are the keys to survival in the workforce. As the White Paper observed, 'It can no longer be assumed that training received as a youth will be sufficient to carry through a person's working life.'

(b) New Demands on the Occupational Education System

With the changing economy come new demands for new services and training to be provided by the occupational education system. There is also a need for the occupational education system to perceive that, no less than its graduates, it too has skills and services that can be sold in the world marketplace.

The scope of training and the approaches to it have changed. Up-to-date know-how and information are the essential tools of the expanding sector of the economy that is constituted by knowledge-based industry. Many firms do not have the research staff or worldwide connections to keep themselves abreast of developments in their field that could

affect their business, nor do they have the time to train new staff in advanced methods. These firms look to the occupational education system to obtain the information they need and to train their staff, and they are prepared to pay for these services.

Information and know-how in readily usable form are also needed by the occupational education system's graduates who are in the workplace, striving to keep up with the latest developments, to do a better job and advance themselves. They require new ways of helping them learn on their own, throughout their working life. A spin-off of the information economy has been the creation of new information packages that can be used by the individual to learn at his or her own pace. Video cassettes, televised educational programs (which can be recorded on video cassettes) and accessible computerized databases are all easily used by the individual, but few individuals have the resources to locate or purchase these educational tools. Again, there is an opening for the occupational education system to expand its services so as to become a source of continuing knowledge to its graduates.

Finally, information and know-how have become economic goods on a world-wide market. Nova Scotian firms do not necessarily have to look to the Provincially operated occupational education system for training. Other educational

systems, both private and public, in Canada and in foreign countries, offer training programs. Despite their very real strengths, our vocational schools and technical institutes cannot afford to rest on their laurels. To progress and grow they must make themselves the first choice of Nova Scotian employers seeking training for their employees. This will require entrepreneurial initiative on the part of occupational education administrators: a will to go out and sell training programs to industry, to develop the training market in partnership with industry, and to consult with industry to show employers that the occupational education system can meet industry's needs for training and up-to-date information.

To succeed, the occupational education system must be world-class, able to compete with other systems anywhere in the world in providing information and know-how. This in turn means the Nova Scotian system has a new marketplace: the world. A world-class educational system can attract students and industries requiring training from the rest of the world to Nova Scotia. At the same time, the world marketplace gives free play to Nova Scotian educators' entrepreneurial skills in selling instructional and information packages developed in Nova Scotia worldwide.

(c) Dispersal of Effort

Nova Scotia's vocational schools and technical institutes have the potential resources to respond to the changes in the workplace. To a large degree, however, each school and institute responds to the changes on an individual basis, without reference to courses offered at other places or at other levels in the Province. Individual and local initiative are commendable and must be preserved. On the other hand, informed observers have pointed out that the discrepancies between the courses and programs offered at the various institutions, taken in conjunction with the rigidities in scheduling at some schools, represent costly dispersal and misdirection of effort from the point of view of the occupational education system as a whole.

The most obvious problem is the lack of standardization of courses at vocational schools across the Province. The Royal Commission on Post-Secondary Education found that, in 1984-85, 30 of the most frequently offered programs at the vocational schools had entrance standards that differed according to the school. Indeed, in secretarial programs, the prerequisite grade level ranged from grade IX to grade XII. The length of each program does not differ significantly from school to school. Thus, when programs are tailored to suit the levels of competence of entering students, the levels of competence attained by graduates of the different programs may also be different.

Similarly, information received during the hearings held by the Community College Study Committee in 1986 indicated that there is insufficient rationalization of course offerings at the vocational level. Thus, even though only four or five people per year may apply to study mechanical drafting at two of the six schools which offer the course, the course continues to be offered at all six. Participants in the hearings felt that more could be done to encourage certain schools to specialize in certain subjects for which there is low Province-wide demand.

Specialization, as opposed to the attempt to offer as many subjects as possible at every school, implies that every school is part of, and plays a distinctive role in, a coordinated system of education. Participants in the hearings felt that a systematic approach to occupational education had not been sufficiently explored. For instance, it was suggested that there could be agreements between schools to accept another school's normal intake in a program for one year while the first school's instructors work at their skill in industry or receive other forms of upgrading and updating education.

Comments were also made suggesting that there could be more imaginative use of time, both for instructing students and training instructors. At most vocational schools, the training day runs from about 8:30 a.m. to about 4:00 p.m., five days a week, from September to June. Evening and weekend

classes are rare, and courses that could be offered over the summer months are not. Nor are summer months effectively employed for upgrading instructors. Admittedly, some of the scheduling problems, especially for evening and weekend classes, could be attributable to lack of funding, but reallocation of resources to overcome these problems should be considered.

Inflexible scheduling may derive from the vocational schools' origins in the secondary school system and the habits of mind associated with providing instruction mainly to youthful students accustomed to an 8:30 to 4:00 training day. Participants in the hearings noted that the occupational education system's student body is still mainly under 21 years of age, and recommended that greater attention should be given to meeting the needs of older students as well as those of the traditional, younger, student body. The current situation is shown in figures 1 and 2, which reveal that one year after graduation no less than 67.3% of all occupational education graduates are aged 21 and under, and in fact 92.2% are aged 24 and under. The technical institutes, which are clearly defined as post-secondary institutions, have a better record: 28.2% of their graduates are aged 25 and over one year after graduation.

Another common criticism is that, rather than seeking to train persons from a wide range of age groups and from a wide

Figure 1
AGE LEVELS OF ALL RESPONDENTS
ONE YEAR AFTER GRADUATION

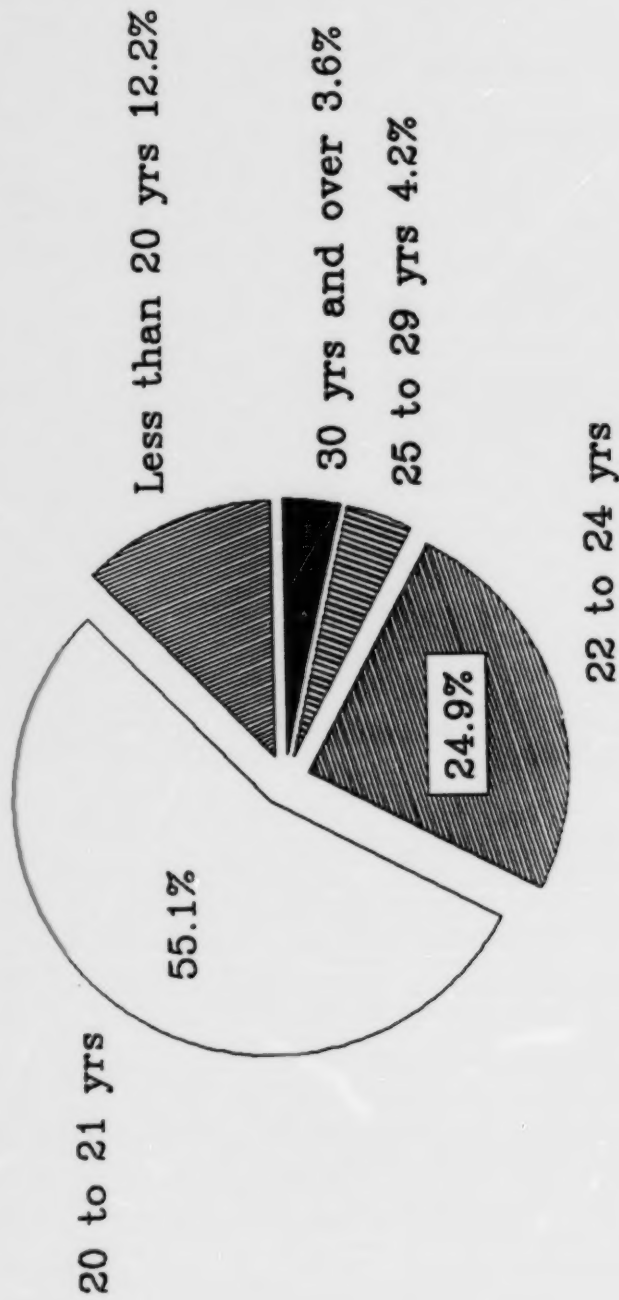
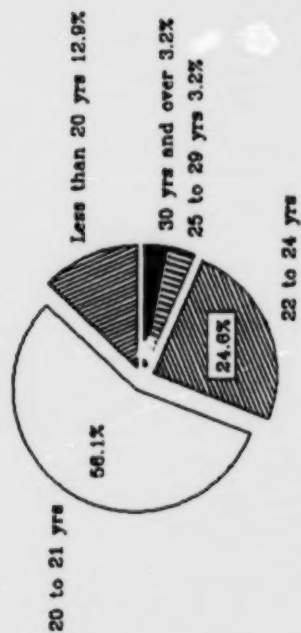
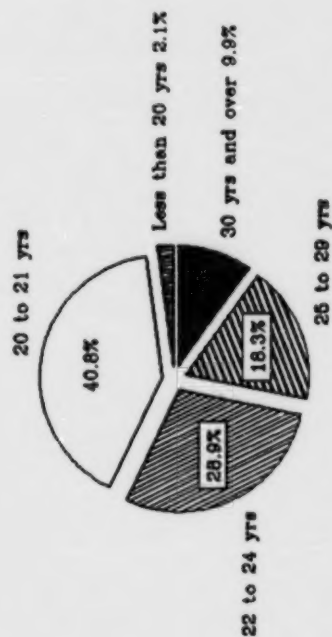


Figure 2
AGE LEVELS OF VOCATIONAL AND TECHNICAL RESPONDENTS
ONE YEAR AFTER GRADUATION



Vocational Respondents



Technical Respondents

range of educational levels, the occupational system has been concentrating on young persons who have a grade XII certificate or higher qualification. It is recognized that these qualifications are clearly necessary for admission to the technical institutes, the high quality and standards of whose programs are a source of pride to Nova Scotians familiar with them. But figures 3 and 4 suggest that the vocational schools could be doing more to improve the educational levels and skills and generally meet the needs of persons who enter the schools with less than a grade XII education.

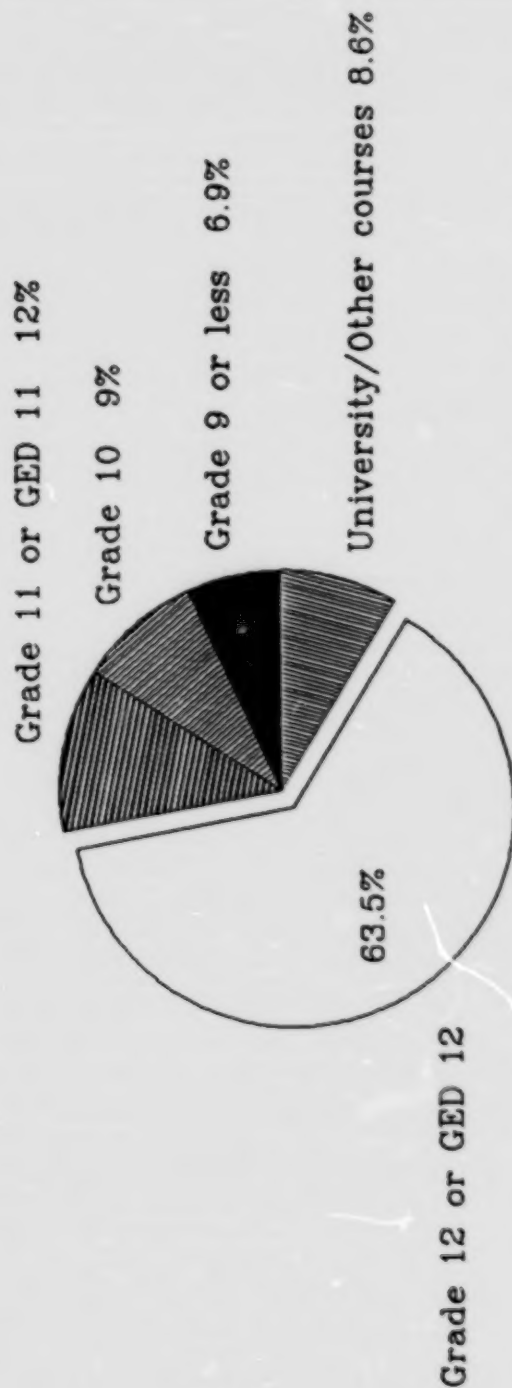
(d) Funding Constraints

Finally, two factors made a review of the occupational education system imperative. One is the changed nature of the labour market. As the White Paper noted,

skill shortages are already limiting business activity and consequent employment opportunities. Unlike the situation during the 60s or even the 70s, Nova Scotia's current shortages closely match national trends. Indeed, for many skills, the shortages are international in scope. The situation is particularly intolerable because these shortages coexist with high levels of unemployment. People are available, but they do not have the required skills to fill existing and future vacancies.

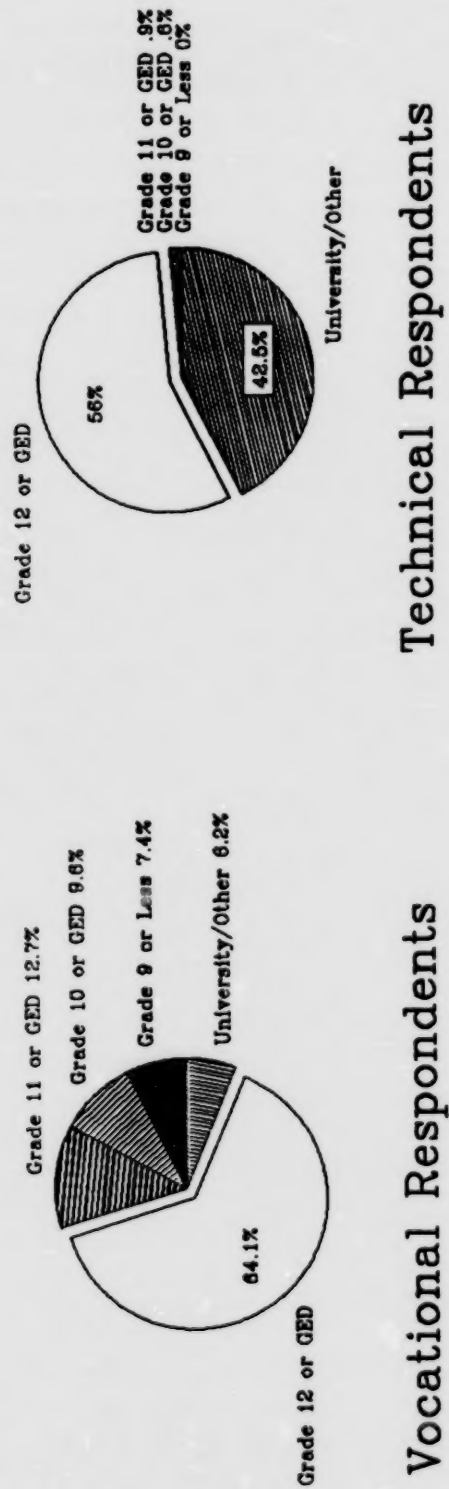
Clearly, much more than in previous decades, the Province must draw on its own human resources to provide the skilled labour that will enable Nova Scotian industries to modernize and compete with firms in the same business elsewhere.

Figure 3
EDUCATION LEVELS OF ALL RESPONDENTS PRIOR TO TRAINING



Source: 1986 Graduate Follow-up Survey

Figure 4
EDUCATION LEVELS OF VOCATIONAL AND TECHNICAL RESPONDENTS
PRIOR TO TRAINING



Secondly, at a time when more, rather than less emphasis should be placed on the Provincial occupational education system, the Province is faced with the prospect of a further decline in the Federal funds committed to occupational education. The latest Canada/Nova Scotia Agreement on Training saw a striking reduction in Federal support for direct purchases of training. Over the three years of the Agreement, the Canada Employment and Immigration Commission (CEIC) will reduce the funds allocated to direct purchases of training by 39%. In addition, the current Federal Review of Apprenticeship Training may possibly lead to further reductions of funding in that field after 1988. A Provincial response in the form of an improved occupational education system is clearly necessary, both to take advantage of increased indirect purchases of training promoted by the Federal Government's Canadian Jobs Strategy and to make optimal use of scarce financial resources.

(e) Other Provinces' Responses to Change

In deciding upon a review of its occupational education system, Nova Scotia is not alone. Similar pressures have led to new initiatives in occupational education in other provinces, notably Newfoundland, Saskatchewan, Quebec and Ontario.

In Newfoundland, the 1987 Provincial budget allocated \$2,700,000 to begin a community college system and to increase operations and equipment funding for the Province's operations and equipment funding for its institutes and colleges. First-year university courses will be offered at certain community colleges, a number of specialty welding centres will be established throughout the Province, and library resource centres and career planning centres will be created in various community college regions. Funds will be provided to update and expand engineering technology courses related to offshore oil and gas activities and to upgrade training capability in computer-related technologies.

Saskatchewan recently released a policy document entitled Preparing for the Year 2000 which outlines immediate initiatives that will be taken to prepare the adult education system for the challenges of the coming decade. Steps have already been taken to consolidate the technical institutes and urban community colleges into a Saskatchewan Institute of Applied Science and Technology. Program specialties will be established on each campus, and the Institute as a whole is expected to operate annually on a break-even basis, covering a portion of its operating costs from private sector training contracts. Meanwhile, the eight community colleges in southern Saskatchewan will be transformed into regional

colleges with an extended mandate to offer university and technical institute programs on a contract basis, as well as other career programs.

In May 1987, Quebec announced major improvements in its secondary vocational training system. Approximately \$93,000,000 will be spent over the next three years on a curriculum review, new testing methods adapted to the needs of the job market, upgrading of equipment and teaching materials, and further training for teachers.

Finally, Ontario has just introduced a new Training Strategy that will cost \$500,000,000 in new money over the next five years and is aimed at improving the skills and productivity of Ontario workers to enable them to meet increasing international competition. The Training Strategy includes a counselling service, a trades updating program, a basic skills upgrading program and a funding program that will help firms pay for the direct instructional costs of training. In August 1987, the government announced 'Transitions', a training credit program for people aged 45 or older who have lost their jobs through permanent layoffs, plant closures or the failure of their own businesses. The older workers will receive up to \$5,000 credit over two years to pay for training with new employers, private trainers or in public institutions.

These Provinces have clearly taken steps to meet the demand for training opportunities that are adapted to the new economic environment. By so doing, they have made it all the more imperative that Nova Scotia have an occupational education system whose graduates can compete effectively with those of any other system in Canada or, indeed, the world. Otherwise, the Province's industries will not be able to keep up with competitors elsewhere which employ more modern techniques and the Province will not be able to attract new industries that require a workforce skilled in advanced technology.

2. Recent Developments in Occupational Education in Nova Scotia

From previous references to the White Paper on Economic Development of 1984, it will be seen that the Community College Study is only the most recent development in occupational education to have been prompted by that Paper. In the White Paper, human resource development was viewed as a major area in which the Government could help firms and individuals strengthen their competitive ability and performance. As a result of the White Paper, the Government undertook to remodel the training system in the Province.

The first steps taken were:

- . Vocational and technical training functions were combined under a second Deputy Minister in the Department of Education.
- . A Deputy Minister of Manpower was appointed in the Department of Labour and Manpower to strengthen research and planning functions.
- . Subsequent to the recommendations of the Provincial Conference on the Economy, in October 1985, a new department combined the subdepartments headed by the Deputy Minister of Vocational and Technical Training and the Deputy Minister of Manpower. First known as Human Resources Development and Training, the Department was renamed in February 1986 the Department of Vocational and Technical Training. In November 1987, when the Department was also given responsibility for university education in the Province, the name was changed to Advanced Education and Job Training so as to reflect its broader mandate.
- . In the 1986 session, the House of Assembly passed 'An Act respecting Vocational, Trades, Technical and Technological Training'. This Act gave a formal mandate to the Department of Vocational and Technical Training (the present Department of Advanced Education and Job Training) and established directions for future vocational and technical training in the Province.

3. The Community College Study and Public Hearings

Of these directions, one of the most important pointed toward the establishment of a community college system, whose creation was specifically enabled by the Vocational and Technical Training Act. To some degree, this was in response to the Royal Commission on Post-Secondary Education which reported on 18 December 1985 that the value of occupational education institutions and the courses they offered was insufficiently appreciated or made use of in Nova Scotia, by comparison with other jurisdictions which had a formally designated system of community colleges.

Given the rapidly changing economic environment and the need to adapt occupational education to it, the Royal Commission's observations prompted the Government to consider new ways of organizing occupational education in Nova Scotia. Of these, the introduction of a community college system seemed to be the most promising.

(a) The Nature of a Community College

Apart from being a place of learning that does not grant degrees, there is no single, clear-cut definition of what a community college is, because the characteristics of community colleges vary according to the jurisdiction. In some Provinces, community colleges coexist with technical

institutes, in others, the institutes have been absorbed into the colleges. In some Provinces, such as Quebec, the colleges directly provide first or second year university courses; in others, such as Prince Edward Island, the colleges are clearly separate from universities. Indeed, in reviewing the history of the growth of Canadian community colleges, John Dennison and Paul Gallagher observed that 'In some respects, it is easier to describe what these colleges were not rather than to identify them by what they were or what they aspired to become.' (The following discussion is based upon Dennison and Gallagher's study, Canada's Community Colleges (Vancouver: University of British Columbia Press, 1986).)

Nonetheless, Dennison and Gallagher identified a certain number of general characteristics shared by most community colleges in terms of their educational mission. In making provision for community colleges, the framers of the Vocational and Technical Training Act foresaw that an institution or institutions with at least some of these characteristics could make a valuable contribution to vocational and technical training in Nova Scotia.

The fundamental characteristic is the community college's community orientation, that is to say, its **responsiveness to the wide range of educational needs of citizens of all ages and backgrounds.** There is usually provision for members of

the community to participate in the direction of the colleges; and, far more than universities and other post-secondary institutions, community colleges are responsive to the educational needs identified by provincial governments.

Community colleges are intended to serve a broad cross-section of the population. Consequently, there is a greater variety of students than in other institutions. The student body embraces young and old, men and women, full-time and part-time students, and people of all races, creeds, colours and income levels. This situation greatly increases the opportunities for informal education, that is, what students can learn simply by associating with one another and especially by associating with people from different backgrounds.

The variety of students is largely the result of a more open admissions policy than is usual in post-secondary institutions. In theory, open admissions means that applicants can enter programs of their choice regardless of previous scholastic performance or the length of time they have been out of formal education. Obviously, in practice, no existing institution has the resources to enable people to enter courses for which they are wholly unqualified. As a result, open admissions has come to mean acceptance of a wide range of applicants and, where necessary, the provision of

education that raises the credentials of applicants to a level where they can be accepted for their preferred program. Entrance qualifications remain, but a variety of instructional opportunities are provided to increase the number of persons qualified to apply.

Since community colleges are open to a wide range of students, counselling and other student services are exceptionally important. As Dennison and Gallagher point out, in the formation of community colleges,

All applicants - indeed, in some cases, all people in the college region - were to be able to receive professional advice and assistance in career and educational planning, and this service was held to be just as important to the success of students and the institution as the teaching services provided.

In other words, counselling is not intended to be a support for problem students only, but an essential service for all students, directing them towards the courses that both answer their needs and enable them to realize their personal potential.

Among the services to a student body that embraces a broad sector of the population is **operational flexibility**. Community colleges are prepared to schedule courses in mornings, afternoons, evenings or weekends, provided student demand exists. Furthermore, instruction is frequently offered on a more flexible, year-round schedule than the September-to-

April-or-June year of public schools or universities. Some colleges may operate on a semester basis, but others operate on a trimester or quarterly basis, and some on a twelve-month year. Different programs can be offered in different cycles, to correspond to seasonal needs or restrictions. Thus, a college could offer fisheries training in the winter, when there is less activity in the fishery, and use some of the same classrooms for personal development courses over the summer.

Comprehensiveness of the curriculum is perhaps the most distinctive feature of community colleges. Dennison and Gallagher give eight general areas in which courses are taught at most community colleges:

1. Vocational and trades training programs of different but usually short durations, intended to lead directly to employment for graduates who would be job-ready.
2. Apprenticeship training programs for those trades requiring this form of work preparation.
3. Career, technical and para-professional programs of two or three years duration, intended to prepare graduates for employment at technical, mid-managerial or professional assistant levels.

4. University transfer programs made up of courses parallel or equivalent to those offered by universities themselves.
5. General academic programs, with courses not intended for transfer to university but responding to locally recognized need for post-secondary instruction of an academic, rather than job-training, nature.
6. Personal interest and community development programs - of cultural, recreational or community-based character - which do not carry credit toward any college diploma or certificate but which satisfy the intellectual or technical interests of individuals or groups of citizens within a community.
7. Pre-college level or upgrading programs, or basic skill training.
8. Contract programs, developed to respond to the needs of local business and industry.

This list does not exhaust all the training programs offered by community colleges. Some colleges have developed training programs for the Canadian International Development Agency in foreign nations. Some respond to the training needs

of provincial government departments. Others have even developed programs for pre-schoolers and school children, usually in areas not stressed by the local public schools.

This range of programming is wider than in most post-secondary institutions and secondary schools. Among the advantages of comprehensiveness are economies of scale: the same facilities and equipment can be used for different programs; central purchasing can benefit from bulk discounts; and a more effective administration is required than if the programs were scattered among several institutions. Above all, the wide range of programming is intended to allow students to move from one program to another and to narrow the divide between academic and occupational education.

The qualities expected of teachers in community colleges are quite unlike those of a university professor. In community colleges the principal stress is on teaching, not on research or participation in governance. To quote Dennison and Gallagher, 'College instructors [are] expected to teach - or, more precisely, to do whatever [is] necessary to help students learn'. That means that instructors are expected to carry heavy teaching loads and to be readily available to their students both inside and (to some degree) outside the classroom.

(b) The Study Committee and the Public Hearings

The Throne Speech of 27 February 1986 specifically responded to the Royal Commission's concerns about occupational education by stating that a study would be undertaken of the feasibility of a community college system and of the following issues:

- . making the system operational throughout the year
- . making courses of study and training available on a modular basis
- . extending the number of hours the schools and institutes operate each year
- . enhancing cooperative and work experience education and training opportunities
- . developing a tiered approach to training so that the student may move from vocational to technical to university education.

To undertake the consultations, a Community College Study Committee was established consisting of the two Deputy Ministers and the senior management group of the Department of Vocational and Technical Training (as The Department of Advanced Education and Job Training was called at that time). The Committee was mandated to study issues in the following broad categories:

- . students
- . human resources
- . programs
- . governance/administration

- . funding
- . facilities.

During the spring of 1986, therefore, the staff of the Department of Vocational and Technical Training prepared an issues paper, 'A Study of a Community College System for the Delivery of Trades, Technical and Technological Training in Education in Nova Scotia'. This paper was widely circulated and on 13 June 1986 was sent to staff in all Vocational and Technical Training institutions together with a letter outlining the future process of consultations (Appendix A).

The Committee sought the views of the public in hearings throughout the Province in January and February 1987 (Appendix B). During these hearings, the Committee was joined by the Minister of Vocational and Technical Training, first Hon. T.R.B. Donahoe, Q.C. and then Hon. Ronald C. Giffin, Q.C.

By the time the hearings ended, the Study Committee had received 173 briefs from a broad cross-section of Nova Scotians who either presented their brief in person or mailed it to the Committee (Appendix C). The presentors ranged from major stakeholders in the field of occupational education, such as school boards, principals, teachers and universities, to private citizens with an interest in education. Consequently, the general principles advocated by the briefs

may be considered to reflect a general consensus on the part of Nova Scotians most closely involved with occupational education.

In expressing their views concerning the establishment of a community college system, the public clearly indicated that:

1. The community college should serve students for whom limited or no training opportunities exist in the present system.
2. The community college should serve geographical areas not served by the present system.
3. The community college should coordinate existing occupational education programs.
4. The community college should not duplicate existing programs wherever these are being satisfactorily delivered by existing educational institutions.
5. Change in vocational and technical programs should be for the better, not merely for the sake of change. The words most commonly used with respect to program improvement were 'complement', 'facilitate', 'coordinate' and 'enhance'.
6. The governing structure of the community college should make provision for input of informed opinion from the community.

In short, there was a consensus that the chief needs are to expand the scope of educational programs so as to include students not currently served and to coordinate the programs of the existing occupational education system, without duplicating programs offered by the public schools or universities. The community college should not be an addition to, but a gathering together of, existing public institutions of occupational education.

4. Conclusions

From what was learned in the public hearings and from other evidence and discussions, the Study Committee concluded that a community college system should be established in Nova Scotia. In response to the general consensus that emerged from the hearings, the Study Committee prepared a Green Paper, entitled The Establishment of a Community College System in Nova Scotia. The Green Paper was released in October 1987 for further discussion. Some 1,400 copies of the Paper were circulated, and elicited written comments from the original participants in the hearings as well as lively and informed debate at public meetings and open forums.

The consensus that emerged from the discussion of the Green Paper confirmed the conclusions drawn by the Study Committee from the first round of hearings and submissions in January and February 1987, namely:

1. Nova Scotia should have a new educational institution or system of institutions that provides a wide range of occupational and other educational programs for persons with a wide range of educational qualifications, ranging from high school dropouts to adults requiring retraining or personal development.

This system, which can be conveniently called a community college system, should take its place beside the university system. The community college system, non-degree granting, would stress occupational education; the university system, degree granting, would stress academic education. There should not, however, be a hard-and-fast division between the two systems which would share the education of Nova Scotians after their departure from the public school system. Opportunities for occupational and academic education will continue to exist in both systems.

Further, the community college should not be considered to be strictly a post-secondary institution. The community college, unlike the university, would include both post-secondary and secondary level programs and (in the case of remedial programs) even some pre-secondary level.

2. The community college system should embrace and coordinate existing vocational schools and institutes of technology. There must be mechanisms which permit effective input of public opinion.
3. The mandate of the existing institutions which could form the community college should be expanded so that programs can be offered to a wider section of the population. A broader admissions policy will necessitate the introduction of remedial courses to provide some applicants with the qualifications required by existing programs. Program standards must not be allowed to fail to suit weaker applicants.
4. Programs offered by the various institutions in the community college should be coordinated. Programs across Nova Scotia must be standardized and rationalized so that resources are used in the most effective way to ensure high standards of educational quality.
5. Community college programs should not duplicate programs in other educational institutions, but should complement them.

The following chapters indicate the directions the Department of Advanced Education and Job Training will take

to introduce a community college system in response to the stated needs and desires of Nova Scotians.

The organization of the Nova Scotia Community College as an educational system comprising one francophone college and six regional colleges incorporating the existing technical institutes and vocational schools is considered in Chapter II. The seven colleges will be administered by boards, each with representation from the community of persons it serves. Administrative responsibility will be divided between the Department of Advanced Education and Job Training and the college boards. New agencies to market the Community College's instructional programs and services worldwide are proposed.

The aim of the College will be to serve Nova Scotians of all ages, throughout their lives: the College's mandate is promote lifelong learning. As such, it will require first-class counselling services to direct applicants of diverse achievements and backgrounds toward the training most appropriate for them. Steps will be taken to assure geographical and financial access to the College. These subjects are considered in Chapter III.

The programs which will be offered by the Community College can be divided into seven categories: upgrading, trades training, applied arts, technical and technological

training, university credit, community-based and targeted programs. If the Community College is to graduate students who can compete with the best in the world, it is absolutely essential that the programs offered meet world standards. Means of maintaining standards and of providing continuing up-to-date information on trade skills, as well as the various forms the programs will take, are the subjects of Chapter IV.

Chapter V considers the current resources, the resources required and various means of financing the Community College. Since introduction of the Community College will require extensive restructuring of the existing occupational education system in Nova Scotia, a human resource strategy will be developed to ease adjustment by personnel to the new system. The essential features of the adjustment plan are put forward in this chapter.

11. ORGANIZATION

The consensus of the public hearings and comments on the Green Paper was that the principal characteristics of a governing structure for the new Nova Scotia Community College should be the following:

1. Constituent colleges of the Community College system must be operationally autonomous, and be able to develop programs for specifically local needs.
2. There should be central Provincial approval of the budgets of individual colleges in the system and central Provincial direction to allow standardized programming and a common standard of quality.
3. The Community College system should incorporate the existing technical institutes and regional vocational schools.
4. There must be mechanisms to ensure community input concerning the administration and programming of the Community College at both the regional and central levels.

Designing a governing structure with these requirements means redesigning the administrative relationships not only between the existing institutions of the vocational and technical training system but within the Department of

Advanced Education and Job Training itself. It should be noted that the first priority is to coordinate existing resources, bringing the existing technical institutes and vocational schools into the new Community College system. The key changes are reorganization of the Department of Advanced Education and Job Training to create a central administration responsible for the Community College as a whole and, through the grouping of existing institutions, the creation of regional colleges, each with its own board, within the Community College system.

Within the organization there should also be a central agency to develop a market both within Nova Scotia and worldwide for the information and training services offered by the Community College.

1. Central Coordination

The introduction of the Community College system will require a considerable reorganization of the Department of Advanced Education and Job Training. Since administration of the Community College will become the Department's principal function, the current Department must be restructured to meet the needs of the Community College system. Some of the major changes required are (see Tables 1 and 2):

TABLE 1
COMMUNITY COLLEGE ADMINISTRATIVE STRUCTURE

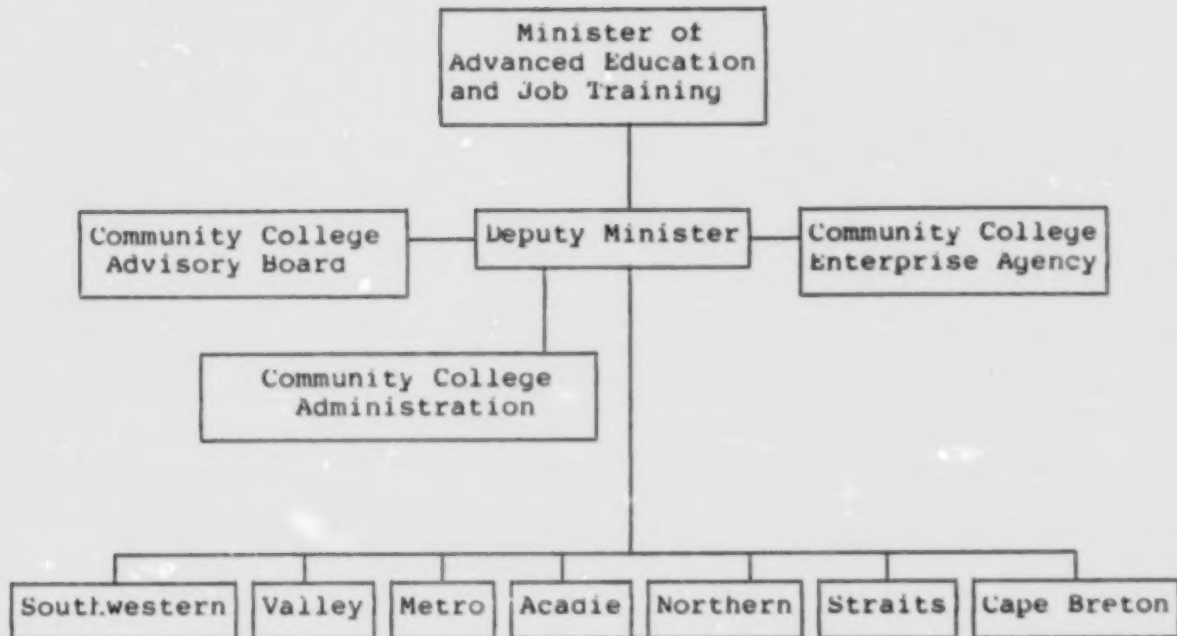
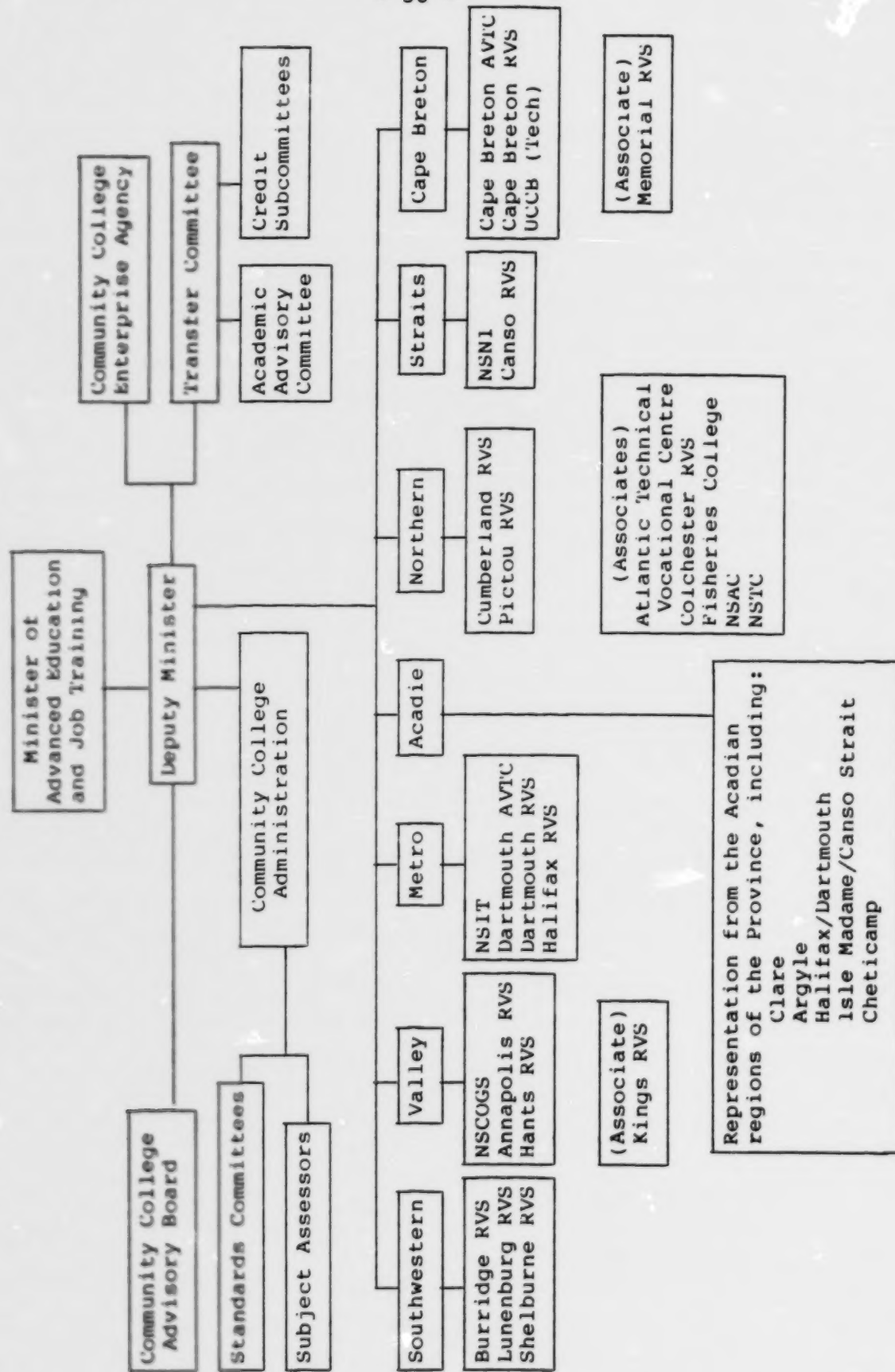


TABLE 2
COMMUNITY COLLEGE ORGANIZATION



- (a) Reorganization of the existing Departmental divisions and their staff to form the Community College central administration.
- (b) Establishment of a Community College Advisory Committee with representation from the regional boards and senior management in the Department.
- (c) Creation of Standards Committees, a University Transfer Committee and other management and policy development committees reporting to the central administration or, in some cases, directly to the Deputy Minister.

The existing divisions of the Department of Advanced Education and Job Training will be reorganized to meet the needs of administering the Community College. Like the current system, the Community College will require a central capability for such things as planning, program development and administration, counselling, evaluation and financial services. However, because of the new, more far-reaching objectives of the Community College and the greater responsibility vested in the regional colleges in the field of regional administration, budgeting and program development, roles and responsibilities of the existing staff will have to be reassessed and, as necessary, redefined.

To ensure that regional views are represented at the centre, the Minister will name a Community College Advisory Committee consisting of the chairpersons of the regional boards. This Committee will be chaired by the Deputy

Minister and report through the Deputy Minister to the Minister. The Committee will be consulted regarding general policy development for the Community College. For instance, the Committee's advice will be sought on matters such as standardization and rationalization of programs and the maintenance of program quality. Members of the Provincial Public Service, such as members of the senior management group of the Department of Advanced Education and Job Training may be named to the Advisory Committee by the Lieutenant Governor in Council. In this way a fruitful exchange of ideas can be developed between the regions and the central administration. Staff of the central administration will be available to respond to requests from the Advisory Committee for research or information.

To perform its role properly, the central administration will require subcommittees reporting to it on various aspects of its mandate. Chief among these will be the Standards Committees established for each program subject. Their role is examined at greater length on pp. 111 and 137, but may be summarized briefly as ensuring standardization of programs and maintenance of high standards in the Community College.

Central administration staff and, as necessary, other qualified persons will form the membership of policy, financial and management subcommittees. A Program Advisory Subcommittee consisting of experts from the fields of management, labour and education might be useful, but the

central administration will be able to draw readily upon the expertise in these fields of the members of the Regional Boards, Standards Committees and the Community College Enterprise Agency. As opposed to a standing subcommittee, regular program planning meetings drawing on the expertise in various parts of the system and the community could encourage flexibility and promote exposure to fresh points of view.

It is proposed that the Community College offer bridging programs to enable graduates to transfer to university. Arrangements could also be developed whereby high-level technology and other courses offered by the Community College would be accepted for credit by Nova Scotian universities. Conversely, some university students may wish to transfer to programs at technical institutes in the Community College and seek credit for some relevant coursework. In cooperation with the universities, a Transfer Committee will be created with a view to facilitating these transfers by establishing standards for bridging programs and credit equivalences between university and Community College courses. The Transfer Committee should operate independently from the central administration of the Community College and will report directly to the Deputy Minister of Vocational and Technical Training. (A similar committee, the Alberta Council on Admissions and Transfer, has functioned successfully since 1974.) The duties of the Transfer Committee are considered at greater length on p. 92.

2. Regional Colleges

The existing vocational schools and technical institutes will be grouped together in six regions which have a recognizable sense of community. Each school or institute will thus become a campus or institution of a larger regional college. The six regional colleges will be considered as forming one system, the Nova Scotia Community College.

Each of the regional colleges will be governed by a regional board, composed of representatives from the community served. Members and chairs of the boards will be appointed by the Minister of Advanced Education and Job Training, with representation from employers, labour, instructional staff, students and appropriate groups within the community. Care will be taken to ensure representation from across the geographical area served by the regional college. The principals of the institutions of the region and designated Advanced Education and Job Training regional staff will be ex-officio members of each board. Executive functions of each regional college will be undertaken by a chief executive officer who will also be, ex officio, a member of the board.

The regional boards will assign responsibilities for program delivery among the various institutions constituting

the regional college. Each board will identify regional needs in occupational training and propose programs to meet those needs for approval by the central Community College administration in the Department of Vocational and Technical Training. Since the regional board is expected to serve the regional community, one of its responsibilities will be the creation of appropriate mechanisms to assure input from the community concerning the region's educational needs and objectives. The regional boards will have to work closely with the Province-wide Standards Committees to ensure that programs offered in the regional colleges meet Provincial standards. The regional boards will also work with the Community College central administration, utilizing existing labour market research capabilities to ensure that programming is sensitive to labour market needs.

Annual budgets drawn up by the administrators of the individual institutions composing the regional community college will be submitted to the regional board for review. After review and adjustment, the budgets will be forwarded as the regional college's budget to the Community College central administration for Departmental approval. After review and approval, the administrator of each institution of the regional college will be responsible for managing the funds and will be held accountable for proper management.

A 'college without walls' seems the best means of serving the educational needs of the Acadian community, because of the geographic dispersion of that community throughout the Province. Therefore, in addition to the six regional boards, there will be a Province-wide board representing the francophone community of Nova Scotia. Members of the board will be appointed by the Minister, with broad social representation. There will also be representation from each of the Acadian regions of the Province including Clare, Argyle, Halifax/Dartmouth, Isle Madame/Canso Strait and Cheticamp. As with the other colleges, there will be a chief executive officer and appropriate staff.

The francophone board will determine which programs and courses will be delivered, in which institutions and localities, and draw up an annual budget to cover the costs of delivering these programs and courses. Thus the board will contract for courses to be delivered by the various institutions of the Community College and other agencies. For instance, as was proposed by the Universite Sainte-Anne itself, the Professions et Metiers program and its facilities, and perhaps some of the diploma courses at the Universite, could be coordinated as part of the francophone college's curriculum.

At present, three Regional Vocational Schools - Kings, Colchester and Memorial - are administered by their local school boards. These schools will be invited to become associate members of their regional colleges, with representation on the regional boards. Negotiations between the Community College and the relevant school boards will be necessary to determine appropriate arrangements. Institutions which become associate members will be expected to provide programs at the standards expected of full members of the Community College.

In areas such as the Eastern Shore and northern Cape Breton, which are distant from an institution of their regional college, it may be advisable to establish satellite offices on storefront lines. The satellite offices would attract enrolment and coordinate the delivery of courses of modules in the areas concerned.

Two of the regions to be served by the proposed regional colleges, namely Cape Breton and Halifax/Dartmouth, now have Adult Vocational Training Centres. Elsewhere in the Province, various types of adult education modules are provided by Adult Education Instructors. They are currently employed directly by the Department of Advanced Education and Job Training and based in local communities. Consideration will be given to attaching the Adult Education Instructors to the regional

colleges, either as employees of the regional boards or as staff of one or more of the regional colleges' constituent institutions.

The seven colleges will be (the names are assigned provisionally and for convenience; individual colleges will select their own names):

(a) Southwestern Regional College

This will serve the counties of Lunenburg, Queens, Shelburne and Yarmouth and the District of Clare.

The institutions which will be the units of this college are Lunenburg Regional Vocational School (RVS), Shelburne RVS and Burridge RVS.

(b) Valley Regional College

This will serve the counties of Annapolis and Kings and the districts of Digby and West Hants.

The institutions which will be units of this college are the Nova Scotia College of Geographic Sciences, Annapolis RVS and Hants RVS. Kings RVS will be invited to become an associate member of this college.

(c) Halifax-Dartmouth Regional College

This college will serve the cities of Halifax and Dartmouth, the town of Bedford and the County of Halifax.

The constituent institutions will be the Nova Scotia Institute of Technology, Halifax RVS, Dartmouth RVS and Dartmouth Adult Vocational Training Centre.

(d) Northern Regional College

This will serve the counties of Cumberland, Colchester and Pictou and the district of East Hants.

The constituent institutions will be Cumberland RVS and Pictou RVS. Colchester RVS, the Fisheries Training College at Pictou and the Atlantic Technical and Vocational Centre at Amherst will be invited to become associate members.

It is hoped that arrangements can be negotiated so that appropriate occupational education programs at Nova Scotia Teachers College and the Technician and Technology programs at the Nova Scotia Agricultural College can be coordinated with the Community College's offerings.

(e) Straits Regional College

This college will serve the counties of Antigonish, Guysborough, Inverness and Richmond.

The constituent units will be the Nova Scotia Nautical Institute and Canso RVS at Port Hawkesbury.

(f) Cape Breton Regional College

This college will serve the counties of Cape Breton and Victoria.

The constituent units will be Cape Breton RVS and Cape Breton Adult Vocational Training Centre. The University College of Cape Breton has proposed that its Technical Campus should form part of the Community College system. Memorial RVS could become an associated member.

(g) College de l'Acadie

The College de l'Acadie will be a 'college without walls', drawing upon francophone educational resources throughout the Province. Being a university, the Universite Sainte-Anne cannot become in its entirety a constituent institution of the Community College, but the Universite's offer of its resources and experience in providing occupational education in French will prove a significant asset to the College de l'Acadie in the development of a

curriculum to meet the needs of francophone Nova Scotians. The College will also arrange for targeted programs in the constituent and associated institutions of the Community College, and encourage affiliated programs offered by francophone organizations.

The primary catchment area for each regional college will be its designated region. The Community College, however, is intended to be a coordinated system serving all of Nova Scotia. Consequently some regional colleges or institutions within the regional colleges may be designated as centres of specialization in certain programs for all of Nova Scotia. Obvious examples are the Nova Scotia Institute of Technology and the College of Geographic Sciences, for many of whose courses and programs all Nova Scotia, and the world beyond, will be the catchment area.

3. Liaison between Central Administration and Regional Colleges

The boards of the regional colleges will have direct access to the central administration. All colleges are, however, expected to work as a Nova Scotian system, with common standards and educational objectives. Consequently staff and administrators of the colleges will wish to have representatives of the central administration within easy call

to discuss day-to-day issues relating to system-wide standards and other matters.

The essential instrument permitting the exchange of educational ideas between the regional colleges and the central administration will be the Standards Committees in each subject area taught throughout the system. These committees, consisting of teachers from each of the colleges offering the subject, members of the central administration and members of the community who earn their living in the field, will be mandated to establish system-wide standards in their respective subjects. These committees, established on a Province-wide basis, will replace the existing Trades Advisory Committees. The Standards Committees will initiate cyclical reviews of programs offered at regional colleges to ensure that standards are maintained.

Comments on the Green Paper stressed the need for cooperation and consultation between all parties involved in the Community College system. Nowhere is this more necessary than in the maintenance of standards, where regional Colleges and Standards Committees will wish to work closely in ensuring that Nova Scotians receive the best education possible. In order to assure a steady flow of information between the central administration, regional colleges and the workplace, the Department should engage Subject Assessors by means such as short-term contract. The Assessors will be people who are

currently active in occupations taught in the Community College and are experts in their field. Their role will be to provide informed advice about the skills and knowledge required to function in the workplace and to make recommendations on delivery of courses in their fields. Subject Assessors will usually be members of their relevant Standards Committees or, if not, they will be expected to cooperate closely with them.

The roles of the Standards Committees, and Subject Assessors are discussed at greater length in chapter IV, section 9.

4. The Community College in the Marketplace

To this point, the establishment of the Community College has mainly consisted of the reorganization of existing institutions and administrations. This acknowledges the fact that Nova Scotia's occupational education system is fundamentally sound, but requires some adjustments to suit it to its new role in the changing world economy. But to take advantage of the opportunities presented by the new economy, in terms of providing information and services both to Nova Scotian industry and to the world at large, new elements must be introduced to the organization of occupational education in the Province.

The needs are clear: to encourage Nova Scotian employers to look to the Community College for information and training; and to market Nova Scotian Community College instructional services and programs worldwide. Some of the responses to those needs can best be developed at the Provincial level, others at the regional level.

(a) Community College Enterprise Agency

At the Provincial level, a central agency, which could be called the Nova Scotia Community College Enterprise Agency, should be mandated to market Nova Scotia Community College expertise, programs and technology (such as instructional and information packages) worldwide. Within Nova Scotia, it will liaise with the Community College central administration to (among other things) exchange information on what services the College is able to provide and what services are needed in the marketplace.

The Enterprise Agency could be a private enterprise with a board including representatives of the Provincial and Federal governments, the private sector and educational institutions. As such, it will be in a good position to sell programs to the Canadian International Development Agency and private sector firms in Canada and abroad.

b) Community Education and Training Officers

One or more Community Education and Training Officers will be on the staff of each regional college with a mandate to:

- . contact industry in the region to determine regional training needs
- . develop training programs customized to the need of regional industries
- . promote regional college programs as a means of solving the training needs of regional industry.

The Community Education and Training officers will thus play a key role in developing the links between the regional colleges and the communities they serve.

The entrepreneurial role of regional colleges in providing information and training services should not, however, be restricted to their regions. They should also look outward, toward the world marketplace. Consequently, the Community Education and Training Officers would be expected to work closely with the Enterprise Agency once their regional colleges had been identified or suggested by the central administration as an appropriate purveyor of training services and information to a client from outside Nova Scotia.

III. STUDENTS

The Community College will have as open an admissions policy as possible in order to serve the whole community. This means that applications will be received from persons who in most cases will be aged 16 and over at all stages of educational achievement. Arrangements will accordingly be made to assess each applicant's abilities and needs and to direct the applicant to the training program that will most benefit him or her. Intake counselling, therefore, will be exceptionally important.

At present the stress in occupational education is upon young people, between the ages of 15 and 21. Furthermore, the emphasis is increasingly on the training of young people with high academic qualifications. Most of the technical and technology courses at the institutes of technology have always required academic qualifications of, or superior to, university standard. More and more, however, the vocational schools are also accepting only school leavers with grade XII certificates.

As far as standards are concerned, this is as it should be.

Employers repeatedly told the Study Committee during the hearings that qualifications for admission to occupational education must remain high, since the skill level of the graduating class is more than likely to be influenced by the original qualifications of the entering class. Employers want the best qualified people they can get, and it is to the advantage of the Provincial economy to have a body of highly skilled people who can readily adapt themselves to the demands of the technological age.

On the other hand, it is likewise advantageous for the Province to train as many people as possible to their full potential. The occupational system must respond to the increasing demand for lifelong learning. In today's rapidly changing economy, people can no longer be certain that the training they received in their youth will continue to be adequate for the rest of their lives. Retraining, upgrading and updating are essential.

Furthermore, the entirely laudable aim of raising standards of occupational education by increasing admission standards has had the unfortunate side effect of depriving persons with lower levels of education of an opportunity to obtain an occupational training. This is a misfortune both to themselves and to the Provincial economy. Studies have shown that persons who have not reached a grade IX level of

education are more likely to be unemployed than are persons with any other level of educational achievement. The second highest level of unemployment is among persons who have a grade IX to grade XII education, but no trades certificate. To be sure, some of these people will not be able to advance to higher educational levels but, with proper motivation and remedial education, many will be able to better themselves.

Consequently, the Community College will have a broadened mandate to educate the widest possible range of people.

The key criteria for admission are aptitude, dedication and potential to complete the course under the conditions, and to the standards, of the Community College. If they can demonstrate these qualities, applicants who are young persons of school age (whether or not they have graduated from high school), adults, disabled, disadvantaged, or members of minority groups should all be able to receive training in the Community College that will allow them to enter, or improve their position in, the workforce. Some will be able to receive training in the general programs, while others will require special programs. Thus, for instance, some persons with a learning disability may require a remedial literacy course at the upgrading level, others will require special targeted programs in occupational training and still others,

whose condition requires special arrangements that the Community College cannot provide, will be directed toward training at an appropriate institution in the community.

To be more precise, the Community College will serve:

- (a) students of public school age who have
 - (i) graduated from high school
 - (ii) dropped out before graduation
 - (iii) moved directly from the secondary school system to the Community College
- (b) adults who have
 - (i) graduated from high school (as a minimum)
 - (ii) dropped out before graduation

1. Counselling, Training Plans and Student Records

Essential features of the training program will be informed counselling of all students entering the Community College, leading to preparation of an individual training plan, and maintenance of system-wide records of each student's training experience.

Because there will be a wide range of course offerings at different levels within the Community College, particular stress will be placed on the career counselling of entering

students, so that they are directed toward the course best suited to their educational and work experience, their aptitudes and their strengths. Career counselling will also be available for students already in the system who seek advice about changing their career plans, but particular attention will be given to entering students, with a view to assessing their qualifications as thoroughly as possible.

Counsellors will thoroughly assess each student entering the Community College system for the first time. Records will be made of the student's work and educational experiences and qualifications, aptitudes, strengths and career plans. The counsellor, in consultation with the student, will develop a training plan that charts the courses within the Community College system (and elsewhere if necessary) that the student should take to reach his or her training goals.

After the student has completed courses in the training plan, the plan will be updated. The student should retain a copy of the plan when he or she transfers to another college in the system to take another course, so that teachers, counsellors and administrators in that college can quickly gain a clear picture of the student's training so far.

In any case, the Community College system will retain a computerized data base of all students' training records and training plans, on line to all regional colleges in the system. Then, when a student transfers from one regional college to another, or re-enters the Community College at a later stage in his or her life, the admissions officers and counsellors at the student's new college can call up the training information they require.

An essential feature of the record-keeping system will be standardized application forms, records and information forms. At present, each vocational school has its own application forms, much to the confusion of applicants and high school guidance counsellors.

It is recognized that the following criteria must be met if students are to receive counselling that will direct them towards the courses most appropriate to persons with their skills, qualifications, aptitudes and strengths:

- . There must be an adequate number of career counsellors in each institution in the Community College system.
- . Career counsellors must be qualified in counselling.
- . There must be a clear definition of career counsellors' duties: counselling should not be considered a part-time occupation.

- . Counsellors' primary mandate must be career counselling, not psychological counselling.
- . Counsellors must have ready access to course information from all institutions of the Community College and to information relating to the demand and necessary qualifications for occupations in the locality and the Province. Counsellors must be able to advise applicants concerning the prerequisites for all programs.
- . There must be strong lines of communication between counsellors in the Community College and counsellors in the public school system.
- . Counsellors should be alerted to the specific difficulties encountered by women, disabled persons and minority groups in obtaining training and employment and should make special efforts to encourage them to enter non-traditional types of employment. Efforts will be made to employ counsellors from these social groups to ensure sympathetic counselling.
- . Students must not be abandoned upon graduation. Counselling must be available to advise graduates of sources of employment, job search methods and so on. Counsellors should promote job creation workshops in every regional college.

Since counsellors must be aware of courses offered throughout the system and understand the required admission standards for standardized courses throughout the system, it is advisable that they be closely tied to the central administration, as well as full participants in the functioning of their respective institutions. Consequently, the credentials of all counsellors in the system will be approved by the Community College central administration in the Department of Advanced Education and Job Training. There will thus be certification of all counsellors in the Community College system. The Department (in cooperation with the Department of Education) will take steps to establish a training program for counsellors who require further training. One possibility is a summer course in counselling, similar to the counselling block of the former Nova Scotia Summer School. Industrial experience as part of a Community College counsellor's background is advisable and will be built into the training program where necessary.

To ensure that funds intended for counselling are not diverted, the allocation for counsellors and the supplies and equipment they need will be a non-transferable line item in the operating grants to the institutions of the regional colleges.

The responsibilities of the central staff of the Youth Initiatives Office for administering counselling will be transferred to the Community College central administration. It is expected that at least some of the field staff, the actual counsellors, of the Youth Initiatives Office will be reassigned to the regional colleges to increase the number of trained counsellors within the system. There is no question of abandoning the Youth Initiatives Office's responsibility to counsel out-of-school youths between 15 and 24, since this responsibility will be assumed by the Community College as part of its more open admissions policy.

Any Nova Scotian of any age who is seeking advice concerning the most suitable kind of training for the career he or she desires will be able to obtain counselling from the counselling staff of the Community College. In many cases, the counsellors will direct the applicant to a training program offered by an institution of the Community College. In other cases, the applicant may be directed towards an upgrading or remedial program offered by the Community College or the public school system in order to raise the applicant's qualifications. In still others, the applicant may be directed toward another training institution or a university. But in all cases, an applicant will be able to obtain informed advice at the Community College.

2. Access to the Community College

Steps will be taken to ensure that programs are accessible to a broad student population.

(a) Geographical Access

Some would-be students of the Community College live in parts of Nova Scotia that are more than 50 kilometres (30 miles) from one of the institutions of their regional colleges. Various means will be used to ensure that they can enrol in a college and receive at least some of the courses that they wish:

- . Satellite offices, on storefront lines, of some regional colleges will permit students to receive counselling and enrol near home.
- . Certain courses can be taught by Community College staff in communities outside the towns in which institutions of the Community College are located, or the College can accredit a course offered by a local organization.
- . Distance education methods, such as dedicated satellite channels, interactive television, audio teleconferencing, community cablevision, computer links and video cassettes, can be used to bring courses to students in outlying areas.

It is probable that rationalization of program offerings will reduce the number of institutions in which certain programs are offered. In some cases, distance education methods can be used to transmit the program of courses from the institution which was responsible for delivering that program to another institution nearer a student's home. In other cases, however, this might not be possible, especially where the number of students in outlying areas does not justify the expense of distance education. In these cases, the students would have to move to where the program was being delivered. It is unlikely that many students would be affected, so introduction of a financial assistance program to defray the costs of transport and residence away from home should be feasible. The new assistance program could be structured so that it could replace the existing boarding and transportation allowances.

(b) Financial Access

At present student loans are available only for post-secondary studies (i.e., grade XII and upwards). In order to make occupational education more accessible to people who require financial assistance, for whom education may well be the key to a better-paying job, student loans should be made available to any registered Community College student who meets established criteria. The government should establish

an Occupational Education Loan Fund specifically for Community College students.

Repayment conditions of loans to Community College students should take the uncertainties of the labour market into consideration. Thus, repayment of the loan should not be required to start six months after graduation, which could prove difficult for a graduate still looking for work or laid off unexpectedly from a first job. Rather, graduates and other leavers who have received a loan should commence repayment once their income exceeds a certain minimum amount. Repayment would then be set at a percentage of annual gross income. Defaulting loans should be repaid from Provincial revenues as a subsidy to the Loan Fund.

This matter will be referred to the Provincial Advisory Committee on Student Aid for review.

(c) Access for Disabled Persons

Where practicable, the Community College will adopt a policy of making all facilities accessible to disabled persons. Structural changes will be made to ensure that persons with physical, visual or hearing disabilities can function safely in the Community College environment. As Table 3 shows, the vocational schools and technical institutes have already taken steps to ensure that their facilities are

TABLE 3: WHEELCHAIR ACCESSIBILITY AT OCCUPATIONAL EDUCATION INSTITUTIONS OPERATED BY THE DEPARTMENT OF ADVANCED EDUCATION AND JOB TRAINING, 1987

SCHOOL	ENTRY	ELEVATOR		RAMPS		HANDICAPPED PARKING		WASHROOM	
		Yes	No	Yes	No	Yes	No	Yes	No
Dartmouth AVTC	Ground Floor - front	X			X	X		X	
Halifax RVS	Ramp - Back Main Floor	X			X	X		X	
Halifax RVS	Ground Floor - Back	X			X		X		X
Lunenburg RVS	Ground Floor - Front	X			X	X			X
Nautical Institute	Ground Floor - Front	X		X		X		X	
NSIT	Ground Floor		X	X		X		X	
Pictou PVS	Ground Floor - Back	X			X		X	X	
Shelburne RVS	Ground Floor - Rear	X			X		X	X	
Annapolis RVS	Ground Floor - Front	X			X		X	X	
Burridge RVS	Ground Floor - Back	X		Portable		X		X	
Canoe RVS	Ground Floor - Front	X			X		X	X	
Cape Breton RVS	Ground Floor - Back	X			X		X		X
Cape Breton AVTC	Ground Floor - Front	X			X		X	X	
Dartmouth RVS	Ground Level - Side	X			X		X	X	
Cumberland RVS	Ground Floor - Rear & Front	X			X			X	
N.S.C.O.G.S.	Ground Floor - Front		One Floor		X	X		X	

March 3, 1987

Pictou only needs hardware
New NSIT is wheelchair accessible

accessible to persons in wheelchairs. Where courses targeted at disabled persons are offered, changes will be made to ensure that these persons can operate equipment safely and human support services will be available.

3. Student Services

Given a student population of all ages, married and unmarried, childless or with dependent children requiring care, the provision of student services to ease students' access to Community College courses is particularly important.

Among the most significant student services that will be considered for inclusion in the Community College's institutions are:

. day care facilities to look after the children of students who are single parents or whose spouse is at work during course-time. These facilities can be used to provide practical experience in programs training day-care attendants and operators in the institutions concerned,

- . counselling centres
- . dining facilities
- . recreation facilities and programs.

IV. PROGRAMS

The Community College system will provide training in seven broad categories (see Table 4):

1. Upgrading
2. Trades Training
3. Applied Arts
4. Technical Training
5. University Credit
6. Community-Based Studies
7. Targeted programs

1. Upgrading

As shown on p. 57, the students applying to the Community College will come from a variety of educational backgrounds. It is expected that many will require academic upgrading to raise their educational level so that they can meet the entrance standards required for further training. Upgrading will be of three types: improvement of educational competency, filling in education gaps and training specifically for students with learning disabilities.

(a) Improvement of Educational Competency

Applicants whose highest grade of education is below the grade level required for admission to their preferred course of study will be able to enrol in a program that will raise their educational competency to the required entrance standards.

TABLE 4
PROGRAMS TO BE OFFERED BY THE COMMUNITY COLLEGE

<u>PROGRAMS</u>	<u>OBJECTIVES</u>	<u>CLIENTS</u>	<u>INSTITUTIONS</u>	<u>IMPLICATIONS</u>
I Upgrading level	Raise education level to enable client to gain access to further training	Youth	All regional colleges	- assessment of clients
a) improve grade competency		Adults		- resource and training for counsellors
b) filling in gaps in adult upgrading				- system and student records (common)
c) remedial, for students with learning disabilities				
II Trades Training	Training in apprenticed trades to obtain journeyman status	Youth Adults	All regional colleges	- integration of apprentice courses at the institutions (modular training will be a critical factor)
a) apprenticed	pre-employment block release			- continuous intake-exit
b) helpers/assistants	To become a trades-person's assistant	To meet prerequisites for trades-persons assistant		- rationalization and standardization (numbers and geographic location)
III Applied Arts	Training in non-apprenticed trades and vocations	Youths Adults	All regional colleges	
IV Technical Training		- with academic grade XII majority to adults	NSIT UCCB NSCOGS NSNI NSAC	- affiliation of technical institutes with universities
a) technicians				- delivery of technological courses outside the institutes
b) technologist diploma				- issue of national accreditation
c) upgrading clients				

TABLE 4 (cont'd)

<u>PROGRAMS</u>	<u>OBJECTIVES</u>	<u>CLIENTS</u>	<u>INSTITUTIONS</u>	<u>IMPLICATIONS</u>
V	University credit access to university extension (Community) College acts as a broker/coordinator) b) bridging program (credit) c) one-year program	University entrance to graduates from bridging programs	Appropriate institutions	- coordinators at regional colleges - Transfer Committee
	Access to bridging/further studies Directed one-year training programs for university clients			
VI	Community-Based a) courses to focus on community problems b) avocational	Local Industry Whole Community	All institutions All institutions	- coordinators at regional colleges - avocational offerings will not duplicate existing services - link with volunteer activities - courses accredited by college, offered by non-profit organizations
	To provide customized training on demand To provide a needed service on demand			
	To use community expertise in training	Whole Community	All institutions	
VII	c) affiliated courses Targeted a) special needs b) vocational/technical training in French c) non-traditional trades d) Programs for blacks and MicMacs	Physically/mentally handicapped Francophones Women	Selected institutions	- need female presence on counselling staff - publicity
	Programs sensitive to needs of disabled persons To provide a range of programs in the French language To train in non-traditional trades Programs sensitive to needs of blacks and MicMacs			

At present Cape Breton and Dartmouth Adult Vocational Training Centres (AVTCs) offer Basic Training for Skill Development which prepares students for further academic upgrading, enrolment in a trades training or work activity program or employment. Instruction is provided in mathematics, science, communications and life skills.

Students in these programs are currently referred by their local Canada Employment Centre under the Federal/Provincial Vocational Rehabilitation Agreement or the Canadian Job Strategy.

In the Community College system, such courses will be available in each regional college. Persons whom intake counsellors identify as being in a position to benefit will be directed towards this training.

The regional college may offer the courses directly or else arrange for the applicant to take appropriate courses at a local school or continuing education program.

(b) Filling in Education Gaps

Some applicants for Community College programs may have the appropriate grade level for admission to their preferred course of study but lack training in certain required subjects.

All Regional Vocational Schools currently offer courses in mathematics, science and communications as related subjects in occupational courses. These courses provide the academic knowledge required to work in the student's preferred career.

The AVICs provide similar programs and also the academically oriented Pre-Technology courses which provide upgrading to grade XII level for adults with grade XI qualifications.

Programs similar to the ones described above will be offered at all regional colleges. The regional college will either offer courses in these subjects or else arrange for the applicant to take the courses at a local school or continuing education program.

(c) Specific Training for Students with Learning Disabilities

The Community College will develop special services to assist applicants or students with learning disabilities in meeting the requirements of their preferred course of study.

These are the most important programs to ensure that people who currently cannot take advantage of the occupational education system can do so in future. Since these programs enable applicants to meet the fundamental requirements for further training, they will be available at all regional colleges in the Nova Scotian system. In conjunction with informed counselling, these courses will give more Nova Scotians an opportunity to gain access to the occupational education system and to fulfil their personal training and career aspirations. At present, students and courses for upgrading are chosen entirely by the Canadian Employment and Immigration Commission (CEIC). Given current cutbacks and possible decreases in Federal funding over the next three years, upgrading may not receive the attention it deserves. Transfer of responsibility for upgrading to the Provincial Community College may facilitate adjustments and modifications in upgrading courses so as to meet students' individual needs.

2. Trades Training

(a) Apprentices

At present, training in the 29 apprenticed trades to obtain journeyman status takes three forms.

- (i) Would-be apprentices may be selected by the CEIC for pre-employment training, which normally lasts 16 to 40 weeks, at a designated school or institution.
- (ii) Otherwise, they may independently choose to study courses in an apprenticed trade for two years at a Regional Vocational School or other institution.

Upon successful completion of either of these forms of preliminary training, the student must find employment in his or her trade in order to be registered by the Department of Advanced Education and Job Training as an apprentice.

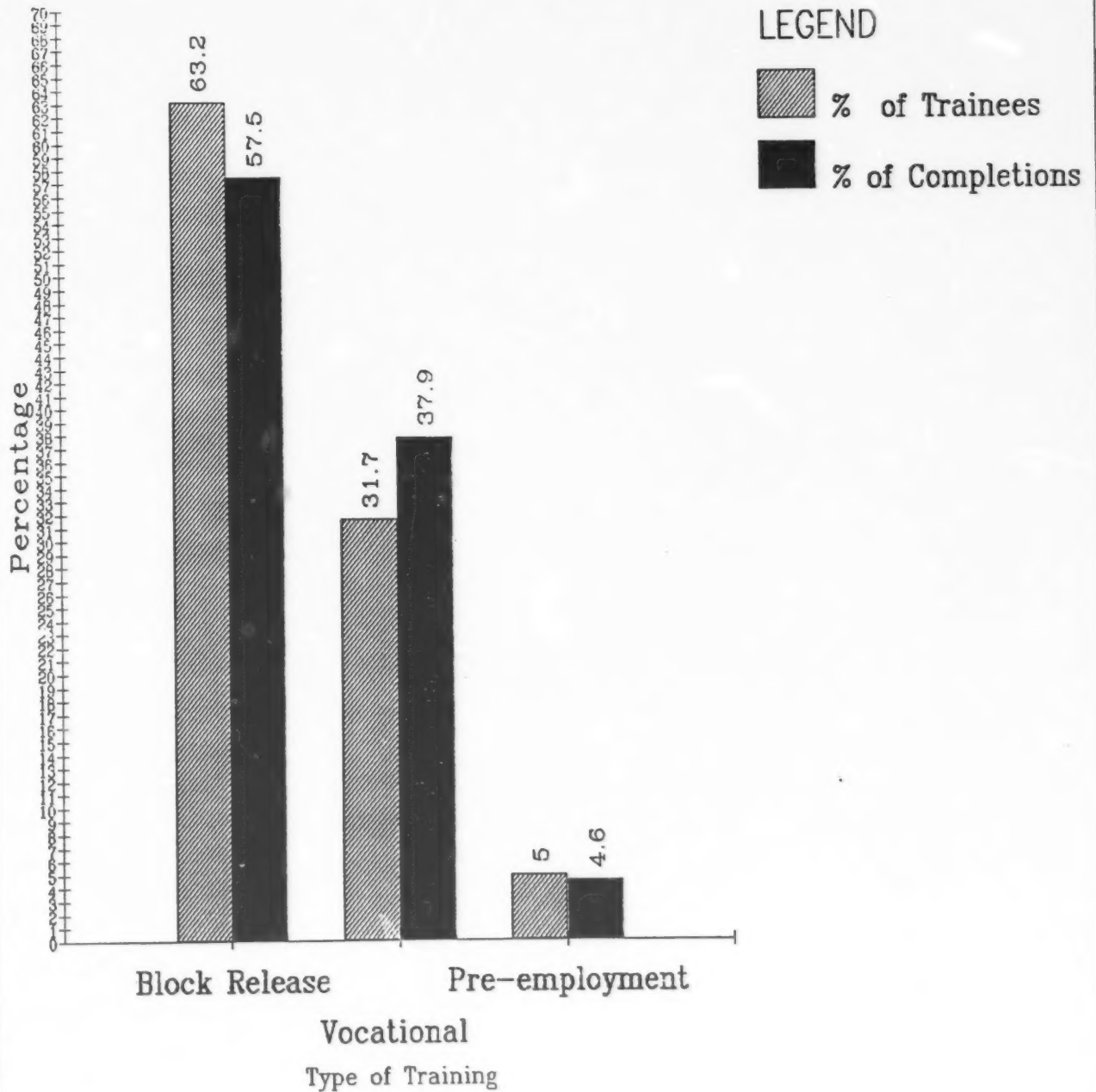
- (iii) The apprentice then returns to the institution for four to eight weeks a year over the length of his or her apprenticeship for further, block-release courses. Following a joint application by employer and employee, a person already employed in a designated trade may also apply to the Department of Advanced Education and Job Training to become a registered apprentice and attend block-release classes.

At the end of the apprenticeship period, the trainee may become a certified journeyman by passing an examination set by the Department of Advanced Education and Job Training.

The great majority, 63.2% in 1985, of registered apprentices receive their training entirely by block release. The second largest number, 31.7%, receive their initial training in vocational schools and other institutions. Only 5.0% become apprentices as a result of the pre-employment program. Of the apprentices who complete their training and reach journeyman status, those who have received their preliminary training in a vocational school or other institution constitute 37.9% of the total number of completions. Since they represent only 31.7% of registered apprentices, they are therefore more likely to complete the course than apprentices entering from block release or pre-employment, who constitute 57.5% and 4.6% of completions, respectively (as compared to 63.2% and 5.0% of registered apprentices). (See Figure 5)

It is, however, doubtful whether the slight increase in likelihood of completion justifies the significant difference in the cost of training a vocational graduate as opposed to a block-release entrant. The average cost of training one person to journeyman status in 1985 was \$12,940 for a vocational graduate, \$5,688 for a pre-employment graduate but only \$4,180 for a block-release entrant. Indeed, three block-release entrants could be trained for the same price as only one vocational graduate.

Figure 5
TRAINING OUTCOMES BY TYPE OF
APPRENTICESHIP TRAINING



Source: Apprenticeship Database, 1986.

Since the Province is already responsible for 80% of the costs of training in the apprenticed trades (except for pre-employment training), and it is possible that Federal funding will decrease in future, the necessity of directing Provincial funding towards the types of apprenticeship training that are most effective is readily apparent. Effectiveness must be judged both in terms of cost and course completions. Given the slight difference between vocational school and block-release training in rates of completion, but the large difference in cost, the conclusion is clearly that in future apprenticeship training should emphasize training methods similar to those now used in block-release courses.

The Community College system will accordingly be responsible for all instruction in the apprenticed trades. The two-year formal programs in the apprenticed trades will be restructured so that there will be a standardized format and curriculum for training in these trades throughout the Community College system.

This restructuring will involve a move towards training modules or blocks delivered under the supervision of the regional colleges. Students entering this type of training who already have the necessary academic qualifications will not require full programming in related subjects. Students requiring upgrading will be counselled upon entering the

college and will be required to take appropriate programming, either concurrently with the modules or preceding entry into training in the apprenticed trades.

It is envisaged that the restructuring will evolve into a system that combines the necessary components of pre-employment training with block release training, in a modular format.

A block training system which can be divided into training modules permits decentralized delivery of apprenticeship training. Equally important, it allows more flexibility in the scheduling of courses compared to the formal two-year training in the apprenticed trades currently provided by the vocational schools, which is restricted to the school year from September to June. A block/modular system can function year-round. More flexible scheduling and decentralized delivery will ensure greater opportunities for apprentices to obtain theoretical training in their trades.

With flexible scheduling, there can be more continuous intake and exit of apprentices. As a result, apprentices and newly certified journeymen will come on to the labour market at staggered periods throughout the year. Only small numbers will thus come on the labour market at any one time. This is

an important consideration in the apprenticed trades, many of which suffer from higher than average excess labour rates.

As a further aid to apprentices who may have to move about the Province in order to find a job, the content and sequencing of apprenticeship blocks and modules will be standard throughout the Province. An apprentice electrician who received several modules of his or her first block of theory courses in Sydney should be able to move to Yarmouth and complete the block with modules delivered there.

As noted above, an important aspect of the apprenticeship training system in the future will be adjustment of current volumes of training from all sources for designated trades to the needs of the labour market. The excess supply situation in some of the apprenticed trades was recognized in the recently completed Canada/Nova Scotia Apprenticeship Study. The restructuring outlined above will not, in and of itself, resolve the problem of excess supply. This matter will have to be discussed in the context of access to standardized training in the apprenticed trades.

Another key development will be the expansion of the apprenticeship program into new occupational areas. The apprenticeship program is viewed by many as an excellent model on which to base training programs as it involves a period of

in-school training in conjunction with on-the-job experience. For example, the Canada/Nova Scotia Apprenticeship Study concluded that 'apprenticeship is an essential part of the industrial and economic life of Nova Scotia. It must be retained and adapted to the changing industrial and technological needs of the Province'. New occupations that can utilize the apprenticeship model will be identified and designated in consultation with the private sector, and will form part of the programming in the Community College.

The expansion of the apprenticeship program into new occupational areas will utilize resources that may become available as a result of the restructuring of training in the apprenticed trades. Of course, resources will also be required for the other new programs and services that will be offered by the Community College, as described elsewhere in this report.

(b) Trades Assistants

Although some persons wish to make a career in one of the apprenticed trades, they may not be able to obtain the qualifications required to become an apprentice or a journeyman. The Community College will be prepared to train these persons as trades assistants, so that they can help qualified tradespeople in a useful manner.

3. Applied Arts and Co-op Study Programs

By far the largest number of trades students in the vocational schools and technological institutes are following a course of study that leads to a job in one of the applied arts, that is to say, a non-apprenticed trade. In a few cases, graduates of these courses are similar to apprentices in that they must pass examinations set by an external body in order to receive certification. Certified nursing assistants and cosmetologists are examples. In other cases, graduation from the vocational school or technological institute represents the final certification.

During the hearings many presentors stressed the value of co-op study programs in helping students to get a feel for their chosen trade before they graduate. In co-op study programs, an educational institution makes arrangements to place a student temporarily with an employer so that the student can gain practical experience in his or her field of study. In educational institutions with fully developed co-op study programs, the student's training is scheduled somewhat like an apprentice's, with some terms set aside for study in school and other terms set aside for practical experience with an employer.

In some Nova Scotian schools and programs, there is currently a form of work experience called contact training.

This usually consists of the student being placed with an employer for two weeks towards the end of the student's training.

Participants in the hearings strongly supported the development of full-scale co-op study programs in the non-apprenticed trades. Development of co-op study arrangements with employers and scheduling of programs to permit extended practical experience will accordingly be priority concerns of the Community College. Other jurisdictions have found that co-op study programs work best when administered and taught by specifically designated staff. Consequently, in the Nova Scotia Community College a Co-op Study Coordinator in the central administration should work closely with applied arts staff in each of the regional colleges to develop and operate co-op study programs.

Admittedly, the Nova Scotian economy is not as large or diversified as that of, say, Ontario, which has extensive co-op programs, and consequently there may be more difficulty in placing students here. Thought should therefore be given to placing students with employers in other Provinces or, through the services of the Enterprise Agency, in other countries. The latter practice is followed by certain co-op programs in Newfoundland, where students obtain practical experience with employers in the United Kingdom. An added

advantage to placing students outside the Province is that they gain experience of working procedures and standards in other parts of the world.

4. Technical and Technological Training

At present, technical and technological training are provided by the Nova Scotia Institute of Technology (NSIT), the Nova Scotia College of Geographic Sciences (NSCOGS), the Nova Scotia Nautical Institute (NSNI), the Nova Scotia Agricultural College (NSAC) and the Technical Campus of the University College of Cape Breton (UCCB). Both technical and technological training give instruction in advanced mechanical equipment, techniques and theory, both require an academic grade of XII or better, and both lead to diplomas. The principal difference is that technical training in a given subject is usually one year shorter than technological - 2 years, as opposed to 3 (or, in some subjects 1 year, as opposed to 2). Most graduates' education association with their technical institute ends with the diploma, unless they return for another course of instruction. Because of the nature of its user group, however, the Nautical Institute provides what may be called technical upgrading as well: merchant mariners regularly return to the Institute following their first certificate for further upgrading. Some technical and technological training involves practical experience on

the job, such as the practicums of health services students in health facilities. In future the opportunities for this practical experience will be expanded through the efforts of the Co-op Study Coordinator in the central administration working with staff in the technical institutes.

Since the purpose of the Community College is to coordinate occupational education in Nova Scotia at as many levels as possible, the technical institutes are essential components of the Community College system. Given that technical and technological education are at an advanced post-secondary level, that technical and technological students have academic qualifications equivalent or superior to university students and that, in Nova Scotia, technical and technological education are also provided by some universities, there are some difficulties in clearly differentiating this level of the Community College system from the university system. This is especially true in two cases, the College of Geographic Sciences and the Technical Campus of UCCB.

(a) The College of Geographic Sciences and the University College of Cape Breton (Technical Campus)

The College of Geographic Sciences offers courses requiring mathematical and computer knowledge of an extremely high order. Indeed, some of the programs are best suited to

university graduates. Five programs are designed for direct entry from high school, but four advanced technology programs require previous post-secondary training or a university degree. While the Community College system and the university system will in future be equal partners in providing post-secondary education in this Province, and the transfer of students from one system to the other will be considered as a normal, rather than an exceptional occurrence, the nature of NSCOGS's programs places it almost equally in the university system and in the Community College.

Unfortunately, the university-level standards of the College of Geographic Sciences and the other technical institutes are not as well known as they should be. In order to increase awareness of the College's university-level programs, affiliation of the College with one or more universities, such as the Technical University of Nova Scotia or Acadia, seems advisable. The College itself will remain within the Community College system.

The Community College administration will accordingly begin negotiations with appropriate authorities in the universities to obtain affiliate status for the technical institutes.

Conversely, the Technical Campus of UCCB, formerly the Eastern Institute of Technology, has more in common with the Community College system than with the university system. In its brief to the Study Committee, the University College of Cape Breton proposed that UCCB should form part of the Community College system, Cape Breton region, and it is hoped that a form of association can be developed.

(b) Technical and Pre-Technology Programs in the Regional Colleges

In order to serve as many students in as many places in Nova Scotia as possible, some technical courses will be offered by at least one institution in each of the six regional colleges. These may be self-contained, or else constitute the first year or years of a technology program. Following successful completion of these pre-technology programs, students will proceed to NSIT, UCCB (Technical Campus), NSAC, NSNI or NSCOGS to finish their technological studies. In this way the catchment area of the technical institutes will be broadened, while retaining their position as the centres of technological studies in the Province.

(c) Accreditation

National accreditation of technical and technological programs to be offered by the Community College system was an

issue raised by some participants in the hearings. There are various advantages and disadvantages in national accreditation. The chief advantage is that graduates may encounter less difficulty finding work in other jurisdictions, where some employers may seek graduates from accredited courses. The chief disadvantage is that it may reduce the flexibility of the Community College, diminishing its ability to respond to the needs of industry for trained technicians and technologists. The issue is complex and is best decided on a program-by-program basis by the central administration of the Community College.

5. University Credit

In order to provide Nova Scotians with as wide a range of post-secondary educational options as possible, the universities and the Community College must cooperate closely. Together, the two systems cover all parts of the Province with a net of post-secondary institutions. The Community College net, however, is wider and serves certain regions, such as the South Shore and the Northumberland Shore, that are not served by universities. The Community College in these regions will accordingly be prepared to help students who wish to take some university courses by distance education or who have to or wish to take the first year of a university program in their own community.

At the same time, the universities offer certain courses - for instance, in the modern languages that are so necessary for international business - and have equipment and facilities that can broaden and strengthen programs in the Community College system. This is especially true in the advanced technical and technological programs. An opportunity exists here for the university and Community College systems to negotiate mutually acceptable arrangements to ease access of technical and technological students to university courses and to enable their transfer, through bridging programs, to university degree programs. Conversely, arrangements could be negotiated for the technical institutes, particularly the College of Geographic Sciences, to offer advanced technological courses to university students.

a) Access to University Extension

People living near one of Nova Scotia's universities can readily take advantage of the regular course programming, continuing education and other programs the university offers. In other regions of the Province access to university programs is not so easy, especially for mature students who work. In these regions, the regional colleges will cooperate with the universities by providing facilities for university distance education or extension courses and coordinating them at the local level. Each regional college will have one or more Community Education and Training Officers, one of whose

responsibilities could be to work with the universities in facilitating, coordinating and publicizing university education delivered through the institutions of the regional college. The Officer would be in close contact with the universities concerning the types of courses they wished to offer through the college. Through local knowledge and public input the Officer would be able to determine the interest of local people in university courses and also the types of courses the community would like to see the universities offer. Ideally, students should be able to receive not only individual courses, but a block of courses representing, say, the first year of a university program. This information would then be conveyed to the universities, together with information regarding the facilities the regional college could make available.

Through the Council of Nova Scotia University Presidents, the universities could decide whether each university would be assigned a specific geographic region for extension education or, more logically, which university would be responsible for providing extension courses in a specific subject at a specific level throughout the Province. The universities could then prepare a list of the courses they wished to offer at the regional colleges, subject to approval by the regional boards because the availability of the colleges' resources is involved. If mutually acceptable, the regional colleges would

undertake to publicize the extension courses and register students for them. Using the space made available to them by the regional colleges, the universities would teach the course in the most appropriate way, by interactive telephone lectures, by visiting lecturers or by some other method.

The Community Education and Training Officers could be the local agents for university extension education, though their principal responsibility will be the coordination of community-based training (see section 5). If an Officer is actively engaged in promoting university extension courses, the Officer's dual responsibilities and allegiance, both to the universities and to the Community College, could be recognized through an arrangement whereby the salary paid to each Officer for the time he or she spends on coordinating university extension courses would be shared by the Community College and the universities. This would also ensure that the universities' interests are actively represented within the Community College system.

(b) Contracting of Courses

Access to university extension courses would be particularly important for Community College students who live some distance away from a university. Several institutions in the Community College system, however, are very near universities. In these cases, instruction offered by the

universities in certain subjects, such as modern languages, which are important for success in the international marketplace, could be useful for Community College students. The regional college boards will be encouraged to negotiate with their local universities to enable Community College students to take university courses for credit toward their Community College certificate or diploma. Otherwise, if inclusion of such courses is felt to be an important enrichment of a regional college program, the regional college could contract with the university to provide the course for its students.

Conversely, universities may find that certain Community College courses would be an enrichment of their degree or diploma programs. Arrangements for credit or contracting of courses with the regional college administration could then be made. For instance, courses provided by the College of Geographic Sciences could be a valuable enrichment of university engineering and computer science programs.

(c) Bridging Programs and Credit Transfers

Technology students at the Nova Scotia Institute of Technology, the Technology Campus of UCCB and some vocational schools usually have academic qualifications equivalent to those of university students and, after completing their technology diploma, often wish to proceed to a university degree program at the Technical University or elsewhere. At

present, these transfers are not easy because of the different emphases on certain subjects at university and the technical institutes and because of course prerequisites at the universities. (An exception is the Hospitality program at Mount Saint Vincent University, which gives credits for courses in that subject at Dartmouth Regional Vocational School.)

One solution recommended in the hearings was bridging programs, to be provided by the technical institutes and some other selected institutions of the Community College. These programs would provide Community College graduates with the necessary knowledge and skills to make an easy transfer in their subject from Community College to a degree program. Each bridging program should carry university credits toward the degree sought.

In addition, the possibility of assigning university credit for certain courses offered by the technical institutes, and Community College credit for certain university courses, should also be explored. This would facilitate transfers between the universities and the university-level institutes in the Community College. It would also broaden the range of courses available to students in the Community College and the universities in their certificate, diploma or degree programs.

The Community College will require advice from the universities concerning the content of bridging programs and the establishment of credit equivalencies. Consequently, in cooperation with the universities, a Transfer Committee will be established with a mandate to develop bridging programs and establish the credit equivalencies of Community College and university courses. Membership of the Committee will be drawn from the universities and the institutions of the Community College, particularly the technical institutes. If agreement can be reached concerning suitable arrangements, an Academic Advisory Subcommittee composed of academics and Community College instructors will be established to determine the course content of the bridging programs. Credit subcommittees of academics and Community College instructors will also be established to determine credit equivalencies in the various disciplines. Where relevant, persons who earn their living in the discipline should be members of the credit subcommittees, to provide perspective on the essential knowledge required.

As with other programs offered at the Community College, reviews of the program staff and facilities of bridging programs would be undertaken at regular intervals to ensure that the programs maintain the proper academic standards. Serving members of the Academic Advisory Subcommittee would not be responsible for reviewing their own program.

To ensure that the Transfer Committee can function effectively as an intermediary between the Community College and the universities, it will be established as an independent agency, separate from the Community College central administration, and it will report directly to the Deputy Minister. The Transfer Committee will be responsible for developing policies, guidelines and procedures designed to facilitate transfer arrangements between the Community College and the universities. It will produce a yearly catalogue of credit equivalencies and transfer arrangements between the different universities and technical institutes.

6. Community-Based Education

As its name implies, a community college's primary responsibility is to respond to the educational needs of the community in which it is located. Therefore, apart from providing the occupational instruction considered in the previous sections and targeted programs to groups with specific needs (see Section 7), the community college will also meet the training needs of local businesses and governments and the desire of many citizens for avocational instruction.

(a) Customized Training

Businesses in the local community often want their staff to be trained in specific techniques. Often, however,

in-house training is not practicable or convenient, especially for smaller businesses. Consequently, there is an opportunity for regional colleges to develop courses of the length and content necessary to meet the training needs of a specific firm. Such courses are offered by community and technical colleges in other jurisdictions and, in most cases, the college provides the teaching staff, equipment and facility for a fee to the firm concerned.

Only rarely, however, are firms likely to approach the community college to request the development of such courses, at least in the initial years before the customized training option becomes well known in the local business community. Consequently it is necessary for the college to go out and sell the idea of customized training to local businesspeople.

In Nova Scotia, this will be the responsibility of the Community Education and Training Officers in each regional college. The Officer (and, of course, any other interested staff) will contact local businesses to discuss their training needs and whether customized courses at the Community College could be a solution. This will be a continuing task since, even if a firm saw no need for such training at one time, changes in manufacturing or marketing strategy may create the need later. The Officers will work closely with the Community College central administration, drawing on the market research

undertaken by the central administration to demonstrate the usefulness of training programs to local firms and supplying the central administration with relevant local data.

If, after discussions with the Officer, a firm believes customized training is appropriate, a training plan will be developed by the Coordinator and Community College staff, in consultation with the firm's management and workforce. The length, content, goals and cost of the customized training will be agreed upon at this time, together with the startup date of the course or program. Training will be provided for a fee and the regional college which delivers the customized training will retain the money received in payment for the program.

For those institutions of the Community College which specialize in training in certain subjects, the local business community will include the whole Province, or even beyond. Here the Enterprise Agency could play a major role in attracting prospective foreign purchasers of training and in suggesting programs that will attract foreign purchasers to regional colleges. The College of Geographic Sciences, for instance, could seek to interest businesses throughout eastern North America. With the aid of CIDA, it could also train students from industrializing nations in the Third World.

Institutions of the Community College will also be prepared to respond to the training needs of Federal and Provincial government departments and agencies. Like other employers, governments often require customized training programs. The Community College central administration will develop contacts with government departments which indicate a need for customized training programs.

(b) Avocational

The public schools and universities provide continuing education classes in avocational subjects in most parts of the Province. In some parts, such as metropolitan Halifax and Dartmouth, a wide range of classes is now available. In other parts, the opportunities for continuing education are more restricted.

Regional colleges will cooperate with local school boards and universities to provide continuing education classes. Regional college administrators or Community Education and Training Officers will work with directors of continuing education programs offered by school boards and universities to determine the courses most appropriately delivered by each type of educational institution. Courses may be offered by teaching staff or by skilled members of the community. For instance, at a regional college, staff could offer avocational courses or else volunteer groups or freelance instructors

could offer their own courses using the college facilities. Care will be taken to ensure a minimum of duplication of courses offered in a community. Informed decisions concerning the nature, location and level of continuing education courses can only come about as a result of regular consultation between continuing education planners and members of the community to be served by the courses. Initially continuing educators will respond to a joint committee consisting of the Deputy Ministers of Advanced Education and Job Training and Education, who shortly after the adoption of this White Paper are responsible for assigning a primary line of authority.

(c) Affiliated Courses

In order to expand their range of course offerings and to meet the diverse needs of the community, certain community colleges (notably George Brown College in Toronto) have promoted the development of training programs offered by non-profit agencies in the community, but affiliated with the college. A wide range of agencies have been involved, including YMCAs, YWCAs, and church, native, women's, ethnic and literacy groups. While these courses are considered to be part of the college curriculum, they are not usually taught by college staff, but by instructors designated and paid by the non-profit agency. Members of the college staff and college facilities may, of course, be involved in the delivery of courses. (The following discussion owes much to Terry M.

Dance, 'College/Community Partnership: An Approach to Life-long Learning' (Presentation to Canadian Vocational Association Conference, Prince Edward Island, 1987.)

In the regional colleges of the Nova Scotia Community College, this activity will become one of the responsibilities of the Community Education and Training Officers. The Officer will act as a broker or willing arranger of learning, promoting contacts between non-profit agencies wishing to offer courses and the appropriate college departments. Typically, a regional college, through the Community Education and Training Officer, will offer the following services to non-profit agencies providing affiliated courses:

- . initial consultation and needs assessment regarding joint training programs
- . assistance in proposal-writing and approaching funding agencies
- . continuing liaison with an affiliated program to ensure smooth integration into the college system
- . training of affiliated course instructors and provision of college staff as instructors on and off campus
- . rental of college facilities, loan of capital equipment, texts and instructional aids
- . publicity.

Since affiliated courses are not delivered directly by the Community College, but the courses are considered to be part of the College curriculum, quality control and maintenance of College standards are particularly important. Consequently, the Community College will

- . certify full-time and part-time affiliated programs
- . monitor and evaluate affiliated programs
- . provide initial counselling and testing of applicants for these programs.

Funding for affiliated programs will derive principally from external sources. For instance, CEIC can purchase seats directly through the regional college at a set rate, and the college in effect subcontracts the program to the non-profit agency providing the affiliated course. Otherwise CEIC can fund a private organization which then purchases the course from the non-profit agency. As far as indirect purchase is concerned, CEIC can fund an agency which then subcontracts components of a training course to the college (i.e., for affiliated courses in which college staff or facilities are involved).

7. Targeted Programs

Appropriate institutions of the Community College system will provide courses and programs that accommodate the special needs of certain groups in the community. Examples of these programs are:

(a) Programs for Disabled Persons

Where possible, institutions' equipment and course structure will be adapted so that disabled persons may obtain training in trades and technologies.

(b) Occupational Training in French

Institutions of the Community College located in or near centres of francophone population will deliver courses in French, where numbers of students warrant. The board of the College de l'Acadie will be responsible for identifying the types of courses to be delivered and will, in effect, contract the appropriate institution to provide them.

(c) Training in Non-traditional Trades

Special efforts will be made to encourage the training of women in non-traditional trades. Counselling will be readily available for women in these programs and the Community College will make a concerted effort through

publicity and intake counselling to urge women to consider these programs and non-traditional careers.

(d) Programs for Blacks and MicMacs

The Community College central administration will consult with black and MicMac organizations to determine the best means of enhancing accessibility to the Community College for these minorities and the development of programs that will best meet their specific needs. Programs will respond to the different circumstances and requirements of the two ethnic groups. For instance, the role of the Federal Government, as the government responsible for native peoples, must be considered in the development of programs for the MicMacs and the funding arrangements for these programs. Among the program options to be considered are affiliated courses offered by black or MicMac organizations, duly accredited by the Community College Standards Committees.

8. Facilitating Continuous Learning

By its very nature, through its broad admissions policy and flexible scheduling, the Community College will play an important role in the provision of continuing education in Nova Scotia. The formal programs and courses that could form part of a citizen's continuing education have been discussed

in the preceding pages. There is a need, however, for less formal means of providing information to Community College graduates, instructors and other interested parties. For instance, automotive mechanics who received their training at the Community College may wish to learn about a few new techniques in their field, without returning to the College for a formal series of courses. To meet their needs, the College could develop a video cassette showing the assembly and repair of, say, a new form of carburettor. Mechanics could then borrow the video cassette and learn the technique in their own time. In short, there is a need for the Community College to collect and disseminate information that can be used by individual Nova Scotians outside the formal Community College course structure.

Collection of information concerning the latest developments and techniques in various trades and industries, worldwide, will be the responsibility of the Community College central administration. The information, once collected, can be provided through

- . software for personal computers
- . software for computers carried throughout Nova Scotia in mobile units
- . video cassettes
- . a Nova Scotia educational television network
- . a lending library.

All instructional courses provided on software, video cassettes and so on will be approved by the relevant Standards Committees.

These services will benefit Community College instructors and graduates of Community College programs in the workplace who need the latest information, particularly on techniques, to do their job properly. The information will therefore be provided to instructors and graduates free of charge. An essential part of students' training in the Community College will be information management skills, teaching them how to acquire further knowledge about their trade after graduation.

The information packages developed for the use of Community College graduates and instructors will almost certainly prove useful to industries for their own training programs. The information packages will therefore be sold or leased to industries in Nova Scotia and, through the Enterprise Agency, to industries and occupational education systems throughout the world.

9. Students

In chapter III, it was mentioned that Community College programs should serve

- (a) youths of public school age who have graduated from high school or dropped out before graduation or moved directly from high school to the college and
- (b) adults who had dropped out from high school before graduation or have at least a high school leaving certificate (and possibly higher certificates or degrees as well).

Table 5 shows how the proposed Community College curriculum will meet the needs of these groups of students (which embrace most of the population aged 16 and over).

Upgrading programs are particularly directed at youths and adults who have not completed high school, but courses which fill in gaps in high school studies will be required by high school graduates to make up prerequisites for some courses, and some graduates may require remedial courses in reading and writing. As a whole, the upgrading courses may serve 4,000 to 5,000 students a year.

Trades training programs in the apprenticed trades are directed primarily at high school graduates, though dropouts

TABLE 5
TYPES OF STUDENTS TO BE SERVED
BY COMMUNITY COLLEGE PROGRAMS

PROGRAMS	PUBLIC SCHOOL AGES		ADULTS	
	GRADUATED	DROP OUT	GRADUATED (A)	DROPPED OUT
I Upgrading level		(B)		
a) improve competency		x (a lot)		x (a lot)
b) filling in gaps in				
adult upgrading	x	x	x	x
c) remedial	x (some)	x	x (some)	x
II Trades Training				
a) apprentices	x	x (ASP)	x	x (few)
b) helpers/				
assistants		x		x
III Technical Training				
a) technicians	x	x (ASP)	x	x
b) technologist	x	x (ASP)	x	x
diploma				
IV Applied Arts	x	x (ASP)	x	x
V University Credit				
a) access to				
university				
extension				
(community college				
acts as a broker/	x	x (ASP)	x	x (ASP)
coordinator)				
b) bridging program				
(credit)			x	x
c) one-year program			x	x

TABLE 5 (cont'd)

PROGRAMS	PUBLIC SCHOOL AGES		ADULTS	
	GRADUATED	DROP OUT	GRADUATED (A)	DROPPED OUT
VI Community-Based				
a) courses to focus on community problems	x	x	x	x
b) avocational	x	x	x	x
c) affiliated courses	x	x	x	x
VII Targeted				
a) special needs programs adapted for disabled persons	x	x	x	x
b) trades training in French	x	x	x	x
c) traditional trades training for women	x	x	x	x
d) programs for blacks and MicMacs	x	x	x	x

Notes

- ASP = At some point
 (A) = Minimum public school
 (B) = Possibly 4,000 - 5,000 students per year.

may enter them after the necessary upgrading. (Some adult dropouts may have acquired sufficient skills on the job to take an apprenticeship program with benefit.) Trades assistants programs are mainly for persons who have left high school before graduation.

Technical and technological programs are intended primarily for high school graduates with superior qualifications. Upgrading of youthful dropouts who display marked ability may give them the qualifications required. The same is true of adults who dropped out of high school, though frequently adults may qualify for these courses through experience on the job. Successful completion of a technical or technological program is a prerequisite for technical or technological upgrading.

University credit programs are for high school graduates and for persons who have obtained the equivalent of university entrance qualifications (by upgrading or work experience, for instance).

Community-based programs and courses, particularly the avocational personal development courses, will attract students with the greatest variety of educational background. Customized courses for industry may well be developed to take into account a range of educational achievements on the part

of the students. Affiliated courses, as mentioned above, will be monitored to ensure that they are taught at standards equivalent to courses in the same category - upgrading, technical, university credit - that are taught by Community College staff.

Targeted programs are available for youths and adults, with or without high school graduation, who are disabled persons, women, francophones, blacks or MicMacs. The programs are at the same level as those in the first five categories, but take into account the special needs of the students. Consequently, a technical program for disabled persons will require high-school graduation (or upgrading to that level) for admission but will be taught in a way and in facilities adapted for the students' disabilities.

10. Quality Control

In a community college system of many different institutions whose student body encompasses a great range of educational achievements there will be considerable pressure to reduce the educational standards of many courses to accommodate the needs of the lowest common denominator. This pressure must be vigorously resisted, especially in the trades training and technical/technological categories. Lowering the standards of programs that prepare the student to enter the

workplace ultimately does a great disservice to all graduates of those programs. Employers want people who are thoroughly trained, as graduates of a substandard program quickly learn when they compete for a job with graduates of institutions that stress high educational standards.

High standards will be maintained in the Nova Scotia Community College in three principal ways: upgrading programs, quality assurance through program review and standardization, and exposure of instructors to the latest developments in their fields through sabbaticals, updating programs and advice from the community.

(a) Provision of Upgrading Programs

Upgrading programs will provide students with the necessary qualifications to gain admittance to trades training, applied arts, technical/technological and university credit programs, and to community-based and targeted programs taught at these levels. There will accordingly be no need to lower standards in these upper-level programs since students will receive education in the basics in the upgrading programs. If standards in the upper-level programs go up in response to changes in the labour market or to position graduates more favourably in the labour market or for university entrance, instructors in the upgrading courses affected must be informed. Otherwise, the graduates of

upgrading courses could find themselves still lacking the necessary qualifications.

(b) Quality Assurance

High standards of educational quality in the courses offered by the Community College system will be assured by

- (i) standardization of course content
- (ii) validation of the centres at which programs and courses are offered, to ensure that the equipment and staff can deliver the courses to the Provincial standards. This function, and that of continuous monitoring and evaluation of programs will be performed by outside evaluators, principally by Subject Assessors drawn from experts working in the community.
- (iii) cyclical review of programs at regional colleges, at regular intervals or as necessary. These reviews will be initiated by the Standards Committees.

(i) Standardized Course Content

In order to maintain a common high standard in courses across the Province, it is essential that courses in the same subject at the same level but taught at different institutions should provide students with the same basic knowledge taught in the same sequence, wherever the course is given.

Individual teachers or institutions may wish to add something more to the course, but students who enrol in a course in, say, stationary engineering in Annapolis should know that if they have to transfer in mid-year to Port Hawkesbury they will be able to complete the course and graduate with the same fundamental body of knowledge.

Establishment of common standards is the task of the Community College central administration in the Department of Advanced Education and Job Training, in consultation with the regional boards of the Community College. At present, proposals for courses and programs are submitted to the Department for approval. Ultimate approval of courses and programs must remain with the Department.

In the early years of the Community College, however, the central administration and regional college staff must jointly review and determine standards for all courses currently taught anywhere in the system. Standards Committees in every subject area will be entrusted with this review. Each Standards Committee for a particular subject will consist of

- . persons from the community who earn their living in the field in question (such as the Subject Assessors in 10(b)(ii) below)
- . members of the Community College central administration

. persons responsible for teaching that subject in all institutions where it is taught.

The Standards Committees will be mandated to establish fundamental course content and the levels at which courses in the subject should be taught throughout the system. Subject to approval by the Department, the Committee's decisions on content and level will constitute the course descriptors for each course in that subject in every institution that offers it. The Committees will also indicate to the central administration where courses could usefully be eliminated from the curriculum of certain institutions, with suggestions for replacing them by others which could be transferred from other institutions.

The Standards Committees will also review requests by regional colleges to provide programs not previously offered. These programs could be similar to others taught elsewhere in the system or they could be of purely regional interest or importance. The regional board in question will have to show that there is sufficient student demand for the program, that it will respond to an identified need of the labour market, and that the college has suitable staff and equipment to deliver the course to the standard of similar courses taught elsewhere in the system.

The Standards Committees, constituted on a Province-wide basis, will replace the existing multitude of Advisory Committees attached to individual institutions. In conjunction with the Subject Assessors (see below), the Standards Committees will be able to give institutions all the advice and assistance they require concerning course content and delivery.

ii) Validation and Monitoring

Institutions of the Community College system must have equipment and staff of the appropriate quality to deliver courses to the standards determined by the Standards Committees in the various subjects. Facilities and staff will initially be assessed to ensure that they can deliver programs and courses to the standards required. The courses and delivery of the programs will be evaluated and monitored regularly thereafter. These are sensitive tasks, not easily performed by the institutions themselves.

Common standards are best maintained by the central administration acting upon the informed advice of persons who actively earn their living in the various fields in which courses are provided by institutions of the Community College system.

Subject Assessors, on some form of retaining contract to the central administration, will be chosen to provide expert advice concerning their field of employment. The Subject Assessors are expected to work closely with regional college administrators and teachers in the development and delivery of courses and programs. Part of their role will be evaluative, so that they can help the regional colleges raise standards where necessary to those required by the Provincial Standards Committees. There will doubtless be many ways in which Subject Assessors' expert knowledge can assist the regional colleges, but some of the Assessors' chief functions will be:

- . assess the facilities and staff of an institution where a program is to be offered
- . assist in the ongoing monitoring of courses and programs
- . assist in the resolution of problems that may arise from time to time in the delivery of a course or program
- . assist teaching staff in the development of curricula
- . evaluate the effectiveness of courses and programs in providing graduates who can perform at the level required in the workplace.

Subject Assessors will maintain constant communication with their respective Standards Committees concerning developments and standards in their field of expertise and in

the regional colleges. In this way, the Assessors will perform a key liaison role between the world of work, the regional colleges and the central administration.

In their initial assessments and continuing review and evaluation of program delivery, the Regional Liaison Officers, acting upon the advice of the Subject Assessors and subject to the approval of the Community College central administration, will be mandated to:

- . require equipment to be modernized or replaced, and facilities to be renovated
- . require staff members to obtain further training
- . give institutions a stated period to undertake the actions above
- . cancel courses or programs at institutions if standards are not or cannot be met
- . recommend to Standards Committees amendments to course content and delivery, to ensure that courses effectively prepare their graduates for the workplace.

(c) Staff Development

At the public hearings, staff members of existing occupational institutions and other people recommended that more attention should be given to further education of teaching staff so that they could keep abreast of the new developments in their field. This is of particular importance

in a period when new technological developments can radically alter the way a task is performed in the workplace. It was stated, for instance, that because of advances in computer-assisted drafting,

A drafting instructor cannot stay abreast with these developments by studying trade journals and technical literature at night on the kitchen table. He requires hands-on learning experiences at approximately six month intervals to stay current and thus give him the knowledge and experience to render the expected service to his students.

In the Community College system, more time will be devoted to staff development. Advice from Subject Assessors who are active participants in the labour force will help instructors to identify changes in their subject area. In order to keep up with their subject, however, instructors must have the opportunity to obtain further education in the workplace or (where necessary) at educational institutions. There will accordingly be:

- . training programs organized by the Department of Advanced Education and Job Training to update teachers in certain subjects
- . sabbaticals for instructors to enable them to return to the workplace (or an educational institution) to update and upgrade their skills and knowledge
- . co-op programs with employers for instructors, as well as for students
- . arrangements whereby one institution in the Community College system could assume responsibility for delivery

of a program for a year in order to allow the staff normally delivering that program at another institution to take a year to further their education in the field.

In this way, instructors who have returned from further education will be able to inform their students (and members of the Standards Committees) of the latest developments in their field. Being on top of one's job and of the latest developments in it will also counter the feelings of low self-esteem noted in some occupational instructors. Students, too, will benefit because their performance will be judged against actual standards of performance prevailing in the workplace, not against the standards of last year's class.

A concern for high standards of occupational education therefore benefits everyone. To be sure, most people, let alone institutional administrators and instructors, find being assessed, evaluated and monitored a stressful experience. And some students may object to taking upgrading courses instead of being allowed to shop around and take whatever course they please, with little concern for prerequisites. There may be pressure to lower standards, to make courses easier, to make evaluation less rigorous. But in occupational education, more than in almost any other branch of education, lack of concern for high standards shortchanges graduates, for graduates of substandard programs or courses do not get the jobs they want.

V. RESOURCES AND FINANCING

Before the proposals outlined in the previous chapters can be implemented, the current resources available to the system must be assessed, the financial and resource implications of the proposals examined, and methods of funding suggested.

1. Resources

The institutions that could become full or associate members of the Community College are the technical institutes and regional vocational schools operated by the Department of Advanced Education and Job Training, the three vocational schools operated by the school boards, sections of certain universities and the Fisheries Training Centre. This Province-wide range of institutions provides a diversified resource base for the future Community College system.

Resources are both capital, in the form of space and equipment, and human, in the form of teaching staff and administrators.

Increases in the number and range of programs offered in the Community College system will almost certainly entail an increase in the number of students to be accommodated in the

College's facilities. As far as space is concerned, Table 6 indicates that many institutions are functioning with surplus capacity and can absorb increased student numbers. A full inventory of space available will be made to determine the exact extent of this resource. The methods used by the Maritime Provinces Higher Education Commission in its inventory of university space will be considered for use by the Community College administration. It should, of course, be remembered that the space required varies according to the type of program and to the teaching methods used. More space is required for modular programs, for instance.

The quality of the equipment available to teach courses varies from institution to institution and program to program. The adequacy of this resource will be determined by the Standards Committees mandated to establish standards for each course and program.

The number of staff available is now somewhat more than adequate to teach the student body currently served in the programs now offered by the vocational schools and technical institutes. Accordingly, an increase in the size of the student body can be readily accommodated. Accredited affiliated courses taught by instructors drawn from non-profit groups within the community will further expand the College's ability to respond to increased student demand. Teachers of

TABLE 6
EXISTING AND PROJECTED RESOURCES: STAFF AND STUDENTS 1986

	Teachers/ Instructors	Students (FTEs)	Capacity with Existing Scheduling and staff*
<u>Valley</u>			
NSCOGS	21.8	146	300
Annapolis RVS	36.0	330	475
Kings RVS	54.0	640	700
Hants RVS	20.0	132	240
	<u>131.8</u>	<u>1248</u>	<u>1715</u>
<u>South Shore</u>			
Burridge RVS	34	319	410
Lunenburg RVS	34	372	420
Shelburne RVS	11	109	200
	<u>79</u>	<u>800</u>	<u>1030</u>
<u>Halifax-Dartmouth</u>			
NSIT	120.8	750	850
Dartmouth AVTC	25.8	250	290
Dartmouth RVS	95.1	950	1150
Halifax RVS	41.2	556	570
	<u>282.9</u>	<u>2506</u>	<u>2860</u>
<u>Northern</u>			
Cumberland RVS	19.3	170	250
Pictou RVS	30.0	359	440
Colchester RVS	39.0	382	466
	<u>88.3</u>	<u>911</u>	<u>1156</u>
<u>Straits</u>			
NSNI	31+	200	550
Canso RVS	35.0	383	500
	<u>66.0+</u>	<u>583</u>	<u>1050</u>
<u>Cape Breton</u>			
Cape Breton AVTC	38.5	300	550
Cape Breton RVS	39.3	512	550
Memorial RVS	31.0	490	490
	<u>108.8</u>	<u>1302</u>	<u>1590</u>
TOTAL	756.8	7350	9401

Excludes

Universite Sainte-Anne (South Shore)
 Fisheries Training College (Northern)
 Nova Scotia Agricultural College "
 Nova Scotia Teachers College "
 University College of Cape Breton, Technical Campus (Cape Breton)
 Adult Education Instructors employed directly by Department of Advanced Education and Job Training

Note: * More flexible scheduling could lead to greater capacity.

affiliated courses will usually be employed directly by a community organization and so will not represent an additional cost to the College.

In short, the existing system is in a position to respond effectively to an increase in student population as a result of a more open admissions policy and an increase in the range of programs offered.

2. Financial and Resource Implications of Proposals

(a) Governance

It is not intended that the new system of governance will lead to any marked increases in expenditure. As far as the Department of Advanced Education and Job Training is concerned, administering the new Community college system will mainly involve the redeployment of existing staff and reallocation of resources. Thus staff from the existing divisions will be regrouped to form the Community College central administration.

Trades Advisory Committees will be replaced by the Standards Committees and by the Subject Assessors on some form of retaining contract; honoraria for committee members can be put toward the Subject Assessors' expenses. Clear evidence of

professional competence and initiative will be required before a retaining contract is awarded.

Grouping of the existing institutions into regional colleges has the potential to increase cost effectiveness and efficiency. Rationalization and redistribution of courses among the institutions of the regional colleges and the opportunity for economies of scale in purchasing for all constituent institutions of the regional colleges should lead to significant savings. With standardization of courses, economies of scale can be achieved through bulk purchasing, and use of the Government Purchasing Agency will be considered to obtain standard equipment needs.

New resources must be allocated for the francophone college.

Startup funding for the Enterprise Agency will be sought from the Atlantic Canada Opportunities Agency, the Province of Nova Scotia and private investors. The Enterprise Agency is expected to be a self-sufficient corporation, turning a profit through the marketing of Community College services and informational packages.

(b) Students

As a priority, funds will be directed toward the development of a fully trained, active staff of career counsellors throughout the Community College system. A training and retraining program for counsellors will be established.

Funding will be required to establish the information systems to manage student records. Further investment will be made in electronic means of providing distance education.

Transportation and accommodation allowances must be considered for students who must travel to a distant institution in the Community College system for the course of their choice. Creation of the Occupational Education Loan Fund will require new funds, though the percentage of the existing student loan fund currently used to support occupational students could form the basis of the new Fund.

Adaptation of equipment and facilities to make them accessible to disabled persons in situations where this is practical will require additional funding, as will the provision of day-care facilities at all institutions of the Community College.

(c) Programs

The financial implications of the programming proposals are best considered category by category (see Table 7).

(i) Upgrading level

Additional resources will be required to pay for teachers in the remedial courses delivered in regional colleges outside Cape Breton and the Halifax/Dartmouth metropolitan area. Demands on other resources will not be great.

(ii) Trades Training and (iii) Applied Arts

Restructuring trades training and localizing training in some subjects should result in a more efficient allocation of funding.

(iv) Technical and Technological Training

Since existing technical and technological training will be continued, this aspect of Community College programming has limited funding implications, except in the provision of technical and pre-technological courses at campuses that currently do not provide technical and technological training.

(v) University Credit

Funding will be required for the new Community Education and Training Officers, but the Community College's main

TABLE 7
RESOURCE IMPLICATIONS OF PROPOSED COMMUNITY COLLEGE PROGRAMS

<u>PROGRAMS</u>	<u>EXISTING</u>	<u>RESOURCE IMPLICATION</u>
I Upgrading level	- related subjects at vocational schools - Basic Training for Skills Development - Continuing Education in District School Boards	- funding for teachers demands on other resources are limited
II Trades Training	i) KVS one or two years to block release ii) block release iii) CEIC pre-training to employment and block release	- savings possible through new methods of course delivery - funding may be needed to standardize equipment
III Applies Arts	- non-apprenticed trades courses	- savings possible through new methods of course delivery
IV Technical Training	- NSIT - UCCB - COGS - NSAC	- additional funding for technological training outside existing institutions
V University Credit	a) access to university extension (Community College acts as a broker/coordinator) b) bridging program (credit) c) one-year program	- little change
VI Community Based	a) courses to focus on community problems b) avocational	- user pay - Community College provides heat, lights, space - user pay - Community College provides heat, lights, space

TABLE 7 (cont'd)

<u>PROGRAMS</u>	<u>EXISTING</u>	<u>RESOURCE IMPLICATION</u>
VI Community Based (cont'd) c) affiliated courses		- user pay - Community College provides staff assistance, sometimes heat, lights, space
VII Targeted a) special needs b) vocational/technical training in French		- additional funding required - additional funding required
c) non-traditional trades		- day care facilities
d) programs for blacks and MicMacs		- additional funding required

participation in university extension programs will be the provision of classroom space. Bridging courses will be mainly classroom work, not requiring equipment. There should thus be no significant new funding required. Institutions of a regional college (such as the College of Geographic Sciences) can raise funds by providing courses to universities on contract; these funds can be used to defray the cost of courses provided by the universities on contract to institutions of the regional college.

(vi) Community-Based Training

(1) Customized Training

For courses developed to meet industry's needs, the Community College will use existing resources, unless the industry offers to purchase specialized equipment. In any case, the costs of providing the courses will be charged to the industrial client.

(2) Avocational and (3) Affiliated Courses

No additional resources will be required to provide avocational and affiliated courses which make use of the Community College's existing facilities. Costs of providing space for the courses will be defrayed by fees charged for the courses.

(vii) Targeted Programs

(1) Programs for Disabled Persons

Additional resources will be required to modify equipment used to train the physically handicapped, make facilities more accessible to them, and pay for support staff.

(2) Occupational Training in French

Additional resources will be required to pay for francophone teachers and training manuals.

(3) Training in Non-Traditional Trades

Additional resources will be required to provide day-care facilities for mothers who wish to learn non-traditional trades. New resources will be allocated to provide female counsellors and to advertise and promote non-traditional trades.

(4) Programs for Blacks and MicMacs

Additional resources will be required to study the special needs of blacks and MicMacs and, in consultation with organizations representing them, develop programs that respond to these needs. Affiliated courses delivered by black and native groups would be eligible for Federal funding.

(viii) Facilitating Continuous Learning

Additional resources will be required to develop the information packages, television programs and lending libraries required to enable Community College graduates and instructors to learn on their own. Some of the costs will be offset by selling or leasing the information packages and programs to industry in Nova Scotia and to industry and educational systems outside the Province.

3. Human Resource Development Plan

Human resource considerations will play an essential part in the overall strategy to implement a community college system in Nova Scotia. Implementation of this new training system will require changes in employee functions as some programs are altered or phased out, while new programs and services are introduced.

The restructuring of the occupational education system will be undertaken in a manner that ensures that all existing personnel in the system are treated fairly and that the skills and experience they have are fully utilized in the new system.

Every effort will be made to integrate all existing employees of Advanced Education and Job Training into the new

structure as it develops. To ensure that this happens in a smooth and efficient manner, a comprehensive human resource development strategy will be undertaken as part of the implementation process for the community college system.

Elements of this strategy could include:

- . appropriate consultation with the unions involved
- . comprehensive career counselling
- . retraining programs
- . upgrading programs
- . early retirement schemes.

4. Financing Methods

Beyond student fees, methods of financing community colleges vary considerably from jurisdiction to jurisdiction. In California, for instance, funding is allocated according to average daily attendance in a prescribed curriculum; Illinois funds according to credit hours recorded; New York funds according to Full-Time Equivalent (FTE) enrolment with a three-year moving average.

Ontario provides operating grants according to a relatively complex formula. The total grant to the community college system is decided with consideration of an inflation factor and estimated change in the level of service and taking

into account annual changes in productivity. Grants to individual colleges take into account the relative size of the institution (by enrolment), FTE enrolment, the nature of individual programs weighted according to their nature and cost, the technology employed, and the college's geographic location (which can affect the cost of supplies and size of classes). There is a separate plant and property component, special purpose grants are made for various purposes and a special policy exists concerning fund raising and the acceptance of gifts which could affect future finances.

The Ontario formula suggests the variety of items financial arrangements must cover. Whether Nova Scotia, which is a small province with considerably fewer and less far-flung institutions than Ontario, requires such a complex funding formula is debatable. Still, almost any educational funding should be subject to annual review and adjustment. The following discussion considers the principal items to be funded and the methods by which they can be funded, indicating the pros and cons of each method. The discussion of funding formulas primarily applies to grants for the operation of upgrading, trades training, applied arts and technical and technological training. These include the costs of operating physical plant. Funding of other programs and capital grants are considered in sections (c) and (d).

(a) Funding Formulas: Unit-based

The three left-hand columns of Table 8 show factors which commonly feature in unit-based funding formulas. These formulas are called unit-based because they specify a certain amount of money per unit of measure. The common units of measure are: student enrolment, the nature of courses which is reflected in a method of weighting, and number of faculty. Occasionally, funding is based almost entirely on one of these items, usually enrolment, but more frequently the formula tries to assign different weights to each. Since all three are continually changing, the funding formula must change with them.

Funding based on **Full-Time Equivalent (FTE) Enrolment** appears straightforward: institutions receive funding for the total number of FTE students enrolled. Unfortunately, this funding is retrospective: since enrolment statistics take time to be compiled and government budgets take even longer to be approved, enrolment funding is based on the previous year's enrolment. The funding based on the previous year does not allow for growth or decline in the student population in the current year, and if the previous year was an aberration in terms of student numbers, institutions can either suffer from severe underfunding or enjoy gross overfunding in the current year. For these reasons, most enrolment-based formulas employ a rolling average of the previous few years. This diminishes

TABLE 8
FUNDING METHODS AND FACTORS

Method	Unit-based			Cost-based	
	Enrolment	Course Weights	Faculty	Cost Plus with Guidelines	Program-by-Program Cost
	- Reflects number of Full-Time Equivalent	- Reflects course costs	- Reflects number of Full-Time Equivalent	- Reflects institutional costs determined on valuation day - incremented in response to inflation, costs	- Reflects actual cost of standardized programs
Drawbacks	- affected by previous years' enrolments - penalizes institutions with large part-time enrolments	- promotes concentration on expensive programs	- does not permit flexibility in staffing	- global - promotes status quo - no incentive to innovation	- must be adjusted to accommodate increased enrolment and course enrichment results in different per student grant from college to college, since program mix is different at each college
Incentive	- to increase number of students	- to concentrate on expensive programs	- to protect faculty size	- disincentive to innovation	- permits innovation

Note: These funding methods refer to I - Upgrading, II - Trades Training, III - Technical and Technological Training, Bridging Courses in IV - University Credit and to certain targeted programs

problems caused by abnormally high or low enrolment in a previous year, but it ensures that funding is never quite synchronized to changes in the size of the student population.

A further drawback is that enrolment-based funding is a positive incentive for colleges to try to drive their enrolments up regardless of quality of students or their ability to benefit from college courses. Funding by FTE student may also penalize institutions that have large numbers of part-time students. These institutions have large numbers of people using their facilities, but in the conversion of part-time to full-time equivalent are funded only as if a much smaller number were enrolled. FTE enrolment funding is based on the number of person-hours in the classroom, but makes imperfect allowance for the extra charges caused in, say, library use and wear and tear by the physical presence of a much larger number of part-time students, compared to the much smaller number of full-time students who constitute an equivalent number of person-hours in the classroom.

Because of the problems connected with a straight enrolment-based formula, formulas usually take other factors into account. Some formulas are weighted to reflect the different costs of different programs. This approach recognizes that program costs vary and that the equipment

required to teach a secretarial course is less costly than the equipment required for computer-assisted design. Whether weighting is the best way to reflect these differences is more debatable, since weighting may affect the total operating grant without taking into consideration the actual number of students in programs or, more importantly, the actual need for these programs. Introduction of expensive programs as a means of skewing a weighted formula grant has not been unknown.

One combination of enrolment and course weights is funding by a formula that provides funds according to the number of students in specified programs. Another is funding by the number of credit hours generated. The first method is a disincentive to enrolment of students in programs or courses other than those specified. The second is exceptionally difficult to operate, since the calculation of the number of credit hours is so complex.

Other formulas allow for faculty size, usually FTE faculty size. There may be merit in this formula, but essentially it is a guarantee of continued salaries for the present number of faculty regardless of decline in student population.

Enrolment, course weights, number of faculty and so on are relatively easy to determine and consequently they are

much in use as units of measure. Unfortunately, the limits tend to be broad measures, so the formulas require constant review and consideration of special arrangements to account for local variations.

b) Funding Formulas: Cost-based

Formulas that try to use a more precise measure, namely, the actual cost of programs, are termed **cost-based**. Examples of cost-based formulas are found in the two right-hand columns of Table 8.

One may be described as '**cost plus, with guidelines**'. This takes the actual costs of delivering programs at a specific institution at one specific time, known as valuation day. In following years, that institution is awarded a sum equal to the cost of its programs on valuation day plus an increment proportionate to rising costs in the system and inflation.

This formula sanctifies the status quo. It restricts the ability of institutions to develop new programs and ignores changes in the size of the student population. Institutions which were relatively undertunded on valuation day will remain so. Institutions which wish to develop new program offerings will find that they must do so out of the existing budget. Indeed, the formula penalizes success in attracting more

students, because the funds available per student will decline. Consequently, introduction of this formula would be strongly resisted by any institutions that wished to innovate or adapt to changing circumstances, which, it is hoped, includes all Nova Scotian institutions.

The difficulty of cost plus is that it is really based on a very broad measure: total institutional costs. Cost plus's justification is the assumption that every program at every institution is somehow unique and incommensurable with others in terms of cost. The thrust of the proposals in the previous chapters of this paper has been, however, that there must be a greater move toward standardization of course and program content and quality throughout the Community College system.

As a result of standardization, a more precise measure can be used as a basis for funding, namely, the actual cost of programs in any given subject. A **program-by-program cost** formula will therefore be considered in relation to its possible application to the Nova Scotia Community College system.

The Standards Committee in each subject area should be able to determine fairly readily the average cost of teaching a given program to the prescribed provincial standards of content and quality. Factors to be taken into account are the

size of classes, instructors' salaries, the cost of equipment used and fees for the program. Costs could be calculated using a specified minimum of students required for the program to function, with adjustments for higher levels of enrolment. The result of the calculations will give the cost of teaching the program to a certain number of students, at a specified level, at any institution in the Community College.

Each institution's total operating budget will therefore be based on the average provincial costs of each of the programs taught at the institution. Adjustments will, of course, have to be made to take into account the number of students above the specified minimum in each program.

A possible objection to this formula is that the grant per student, calculated by dividing an institution's budget by its enrolment, will vary from institution to institution. This is inescapable, because each institution's program mix differs and because the cost of one program differs from the cost of another program. The objection will be made by people who think in terms of institutions (which are intangibles), not of programs (which actually educate students). It is an argument that will appeal to people who feel that every institution in every part of the province should be funded at the same rate per student regardless of the different costs of the programs actually offered by each institution. As such, it

is a political argument, not an educational one. The important point is that the per student grant per program (based on minimum enrolment) will be the same everywhere in the Province, so that the grant per cosmetology student in Port Hawkesbury will be exactly the same as the grant per cosmetology student in Halifax.

A more serious objection is that the average cost formula does not allow for local enrichment of the program. This, however, can be readily accommodated by the provision of a program enrichment grant in the annual budget. This would be an annual grant to each regional college to be used at the regional board's discretion for the enrichment of programs provided by institutions in the college.

As the system expands, regional colleges will wish to augment their program offerings. Unlike the cost-plus system, the program-by-program cost system offers no disincentive to this. Admittedly, the college will have to make its case to the Standards Committee in the relevant subject area, following the procedure outlined on p. 112, and final approval by the Department will be subject to funding available.

A benefit of standardized programs is that changes in cost of delivery can be detected fairly easily on a system-

wide basis, and the relevant Standards Committee can be informed, so that adjustments can be made to the estimated average cost. The next year's budget can then be amended to take projected extra costs into account.

(c) Funding of University Credit, Community-Based and Targeted Programs

Funding arrangements for university credit, community-based and targeted programs are more complex. Some elements of these programs, such as bridging courses, will fit into the general funding formula. Others, such as targeted programs, may require weighting the formula. Still others, such as university extension and community-based programs, may not need to be included in the formula at all since their funding would come from outside sources.

Funding for university extension courses will come from the universities which make use of Community College facilities, as will funding for the courses universities purchase from the Community College. The advanced technology courses at the College of Geographic Sciences justify that college's funding through the Maritime Provinces Higher Education Commission, as occurs now. The cost of **bridging programs** at the regional colleges, however, must be borne by the Community College system, as well as by student fees, and must be included in the funding formula. Since these programs

can be standardized throughout the system, they could fit into the program-by-program cost formula.

As far as **community-based programs** are concerned, the cost of customized training courses will be borne by the industries which contract the College to provide the courses. Earnings from these courses will be kept by the institution concerned for discretionary spending. Regional colleges will provide facilities to community groups wishing to offer avocational courses, the costs to be covered by fees charged for the courses. Funding for affiliated courses has been considered under that heading, in chapter IV; most funding is expected to come from outside sources, for instance, CEIC.

Targeted programs will, in fact, be programs taught at levels equivalent to those in the previous categories (upgrading, trades training, applied arts, technical and technological, university credit), only adapted to meet the needs of specific groups. The funding formula could be weighted to reflect the costs of providing these programs to the target groups, or Standards Committees could determine the average cost of providing programs to the target groups.

d) Funding of Capital Expenditures

Capital grants usually take space and non-space factors into account. Non-space factors include capital goods

employed in the provision of courses, such as equipment and books. Space factors refer to buildings and grounds and their maintenance. Operating and capital grants are calculated separately, though the two are clearly related, since funding for buildings and equipment is related to the number of students using these capital items.

The chief capital items to be considered in a funding formula are:

- . new construction
- . depreciation of buildings and equipment. (A non-transferable line item in the annual grants should be funding specifically to cover depreciation of buildings and equipment.)
- . new equipment required for teaching new courses
- . new equipment required because of attrition or technical change.

Separation of operating and capital grants probably makes sense when only buildings and space items are considered under capital grants. Non-space items are not so easily distinguished from items in the operating grant, because non-space items are often as essential as the teacher in the delivery of many courses in occupational education. A program in small engine repair, for instance, cannot be taught without

small engines to repair; the equipment is an intrinsic part of the cost of the program.

Consequently, it will have been noted in the discussion of the program-by-program cost formula that non-space items (and their depreciation) were included among the factors to be considered by the Standards Committees in their calculation of average cost of program delivery. While this may represent a departure in educational bookkeeping, it recognizes that standardized programs require standardized equipment.

APPENDICES

APPENDIX A: COMMUNITY COLLEGE ISSUES PAPER

A Study of a Community College System Structure
for the Delivery of Trades, Technical and
Technological Training and Education in Nova Scotia

Department of Vocational and Technical Training

"Issues Paper"

June, 1986

Introduction:

In the February 27, 1986 Throne Speech, the Provincial Government commented on the possible development of a Community College System in Nova Scotia.

"My Government recognizes the importance of trades, technical and technological training to individuals and business in Nova Scotia. My Government, therefore, is closely examining the delivery of this training in the context of the development of a Community College System in Nova Scotia, incorporating the existing trade, technical and vocational schools, into this new system. Issues to be addressed in the development of this system include:

- making the system operational throughout the year;
- making courses of study and training available on a modular basis;
- extending the number of hours the schools and institutes operate each year;
- enhancing cooperative and work experience education and training opportunities;
- developing a tiered approach to training so that the student may move from vocational to technical to university education.

During the recently adjourned Session of the 54th General Assembly of the Legislature, Bill No. 85, "An Act Respecting Vocational, Trades, Technical and Technological Training" was debated and received Royal assent. This Bill formalizes the specifics of the operation of the Department of Vocational and Technical Training and includes enabling legislation to create a Community College System in Nova Scotia.

The Bill reads, in part, as follows:

"5 (1) The Minister, with the approval of the Governor in Council, may establish, name, maintain, conduct and govern community colleges that offer programs of instruction in one or more fields of vocational, trades, technical, technological and general education and training in day or evening courses and for full-time or part-time students.

(2) The Minister, with the approval of the Governor in Council, may provide for the appointment of a board of governors for a community college established pursuant to subsection (1) and may determine the powers and duties of the board of governors.

(3) The Minister, or a board of governors of a community college with the approval of the Minister, may enter into an agreement with an organization representing one or more branches of industry or business or with any professional organization respecting the operation of a community college or courses given at a community college.

(4) The Minister, or a board of governors of a community college with the approval of the Minister, may enter into an agreement with a university or college for the establishment, maintenance and conduct by the university or college, in conjunction with the community college, of programs of instruction leading to certificates or diplomas awarded by the Minister, the community college, the university or the college, or leading to degrees awarded by the University.

(5) The cost of the establishment, maintenance and conduct of a community college shall be payable out of money appropriated by or in accordance with an Act of the Legislature, money received from the Government of Canada for educational purposes, money contributed by organizations that have entered into agreements with the Minister or a board of governors of a community college, fees paid by students and money received from other sources."

In order to provide a structure and format for members of the Department to comment on the matter of a Community College system, this "Issues Paper" has been prepared by the Vocational and Technical Training Community College Study Committee. This committee (Wayne Doggett, Norman Graham, Dermot Mulrooney, Kathie Swenson, Peter Woods) will coordinate the work that the Department

will carry out in studying the Community College concept by summarizing the responses received to this "Issues Paper" and by setting up task groups to research and report on specific topics requiring detailed study.

Generally speaking a community college system is normally defined as a series of post-secondary institutions conducting certificate and diploma programs. A community college curriculum offers, typically, some or all of the following: vocational, technical and occupational programs; basic upgrading and remedial courses; continuing and part time education; programs for personal and community enrichment; pre-university and first and second year parallel university courses; and general education.

The main objective of the study is to examine models for the establishment of a Community College System for the delivery of trades, technical and technological education and training to individuals in Nova Scotia.

Issues:

Listed below are some of the broad categories of issues that need to be addressed in carrying out the study:

- (1) students;
- (2) human resources;
- (3) programs;
- (4) governance/administration;
- (5) funding; and
- (6) facilities.

(1) Students:

- (1.1) To whom should a Community College system in Nova Scotia direct its services?
- (1.2) What should the entrance requirements be for Community College programs?
- (1.3) What student services should be provided in a Community College system?
- (1.4) How should a Community College system respond to students with special needs?

(2) Human Resources:

- (2.1) How should staff in a Community College system be organized and represented?
- (2.2) How should staff in a Community College system be certified?
- (2.3) How can personnel within a Community College system be best utilized?
- (2.4) What provisions can be made for professional development in a Community College system?

(3) Programs:

- (3.1) What types of programs should be offered in a Community College system?
- (3.2) To what extent should programs offered at Community Colleges be standardized?
- (3.3) To what extent should programs offered at Community Colleges be specialized?
- (3.4) What types of linkages should exist between and

among programs offered at Community Colleges and other educational institutions?

- (3.5) What mechanisms should be used to deliver programs at Community Colleges (modular, continuous intake, experiential, continuing education, part-time, distance education, etc.)?

(4) Governance/Administration:

- (4.1) How much institutional autonomy should be provided in a Community College system?
- (4.2) How would this degree of autonomy affect - programming, staffing, external relationships, funding, etc.?

(5) Funding:

- (5.1) How should the Community College system be funded?
- (5.2) How should student aid be organized in the Community College system?

(6) Facilities:

- (6.1) How can the existing facilities, buildings and equipment be utilized most efficiently in a Community College system?

Conclusion:

These six issues and related questions are not all inclusive but represent some of the matters that should be debated to arrive at a Departmental Discussion Paper on a possible Community College System for the delivery of trades, technical and technological education and training in Nova Scotia.

The Departmental Community College Study Committee would welcome the comments and suggestions of members of the Department of Vocational and Technical Training on the questions posed above and other questions that should be addressed.

The procedure and time table that will be used to complete the Departmental Study of this topic are as follows:

June, 1986	Issues Paper
September, 1986	Discussion Paper
October/November, 1986	Province-wide Seminars on Discussion Paper
December, 1986	Departmental Position Paper

Persons in the Department of Vocational and Technical Training interested in providing input to be used in the preparation of the Discussion Paper should use the issues listed in this paper as a guide for their responses and should add additional issues, questions and comments that relate to the study of a Community College system. If possible Division Managers should coordinate a response to this "Issues Paper" from their divisions. Responses should be sent by August 30, 1986 to Dermot Mulrooney, Department of Vocational and Technical Training, P.O. Box 2086, Station M, Halifax, Nova Scotia B3J 3B7.

APPENDIX B

COMMUNITY COLLEGE STUDY COMMITTEE

PUBLIC MEETINGS

January 19, 1987	Sydney
January 20, 1987	Port Hawkesbury
January 26, 1987	Stellarton
January 27, 1987	Amherst
February 9, 1987	Halifax
February 10, 1987	Yarmouth
February 11, 1987	Yarmouth
February 13, 1987	Bridgewater
February 16, 1987	Kentville
February 18, 1987	Halifax
February 23, 1987	Halifax

**APPENDIX C: BRIEFS RECEIVED BY COMMUNITY
COLLEGE STUDY COMMITTEE**

Brief No. 129	Acadia University Dr. J. R. C. Perkin, President
Brief No. 87	Annapolis Regional Vocational School Peter J. Robertson - Staff
Brief No. 16	Annapolis Valley Industrial Commission Keith MacDonald
Brief No. 14	Antigonish Progressive Conservation Association David Smith
Brief No. 140	George Archibald, M.L.A. Personal Submission
Brief No. 78	Association of Canadian Community Colleges Ms. Linda LaBerge, Executive Assistant
Brief No. 77	Association of Professional Engineers of Nova Scotia
Brief No. 88	Atlantic Computer Institute Gary Blandford, President
Brief No. 121	Atlantic Provinces Resource Centre for the Visually Impaired
Brief No. 102	Atlantic Provinces Special Education Authority Arnold G. Jones, Superintendent
Brief No. 28	Professor Dick van der Baaren Acadia University
Brief No. 76	Bridgetown Town Council J. D. Walker
Brief No. 136	N. Les Brown Personal Submission
Brief No. 29	Burridge Regional Vocational School Doug Eldridge - Staff
Brief No. 143	Canadian Association for the Mentally Retarded Mike McDonough

Brief No. 23	Canadian Congress for Learning Opportunities for Women (CCLOW) Ms. L. Roberts
Brief No. 33	Canadian Federation of Independent Business Peter O'Brien
Brief No. 166	The Canadian Manufacturers' Association John Veinot, Vice President Nova Scotia - Newfoundland Division
Brief No. 57	Canadian Pensioners Concerned M. Doreen E. Fraser
Brief No. 75	Canadian Society of Laboratory Technologists Barbara Hall, Provincial Director Guy Feetham, President
Brief No. 61	Canso Regional Vocational School (R.V.E.C. Committee)
Brief No. 72	Canso Regional Vocational School (Related Subject Teachers) Vince MacLean
Brief No. 73	Canso Regional Vocational School (V.T.A.) Blaise MacNeil - Staff
Brief No. 59	Cape Breton Regional Vocational School
Brief No. 31	Cardiology Technicians Association of Nova Scotia Phyllis MacDonald
Brief No. 48	Martha Cassidy Yarmouth, Nova Scotia Personal Submission
Brief No. 90	Central Nova Progressive Conservative Association Ted Scanlan
Brief No. 145	Chandler's Funeral Service Limited S. Peter Chandler, Owner and Manager
Brief No. 97	Clare - Argyle School Board Mr. Stan Surette

Brief No. 9	Continuing Education Clare - Argyle School Board Pauline d'Entremont, Coordinator
Brief No. 13	Colchester Regional Vocational School Gordon Sabine
Brief No. 108	Colchester Women's Resource Association Wendy J. Johnston, President
Brief No. 54	Colchester - East Hants District School Board Grant MacDonald
Brief No. 44	Commercial Safety College H. G. Marsh
Brief No. 149	Committee on Allied Health Medical Society of Nova Scotia Dr. J. H. Quigley, M.D., FRCS (C)
Brief No. 74	Company of Master Mariners of Canada Captain Guy Williams
Brief No. 122	Consolidated Fluid Power Institute Arthur R. Keeble, Director of Training
Brief No. 84	Construction Association of Nova Scotia Tom Goodyer
Brief No. 169	Continuous Learning Association of Nova Scotia Dr. Janet Eaton
Brief No. 126	Coordinating Council on the Deaf E. Anne MacRae
Brief No. 106	C. J. Corkett, Ph.D., Instructor Department of Biology Dalhousie University Personal Submission
Brief No. 37	Cumberland Community Futures Committee J. M. Stanley, Chairman
Brief No. 89	Cumberland District Planning Commission Jens Jensen, P.Eng., MCIP Executive Director

Brief No. 62	Cumberland District School Board Ruth Allen and Jacqueline Guyette
Brief No. 105	Cumberland Regional Vocational School Advisory Board Helen Burden
Brief No. 36	Dalhousie University H. C. Clark, President
Brief No. 156	City of Dartmouth Mayor John Savage
Brief No. 115	Dartmouth Chamber of Commerce Kirk MacCulloch, President
Brief No. 138	Dartmouth District School Board Mr. J. Connors
Brief No. 70	Mr. & Mrs. Howard Dean Sydney, Nova Scotia Personal Submission
Brief No. 153	James de la Mothe, Vice-Principal Sir John A. Macdonald High School
Brief No. 168	Digby and Area Board of Trade Maxine Connell
Brief No. 134	Digby District School Board Mrs. Barbara Kaulback
Brief No. 113	G. R. Doucet Personal Submission
Brief No. 123	Carolyn Drysdale Personal Submission
Brief No. 56	Daisy J. Dwyer Greenwood, Nova Scotia Personal Submission
Brief No. 122	Nova Scotia Department of Education Honourable Tom McInnis

Brief No. 94	Federation Acadienne de la Nouvelle Ecosse Mr. Andre Cyr
Brief No. 147	Nova Scotia Department of Fisheries Honourable John G. Leefe, Minister
Brief No. 159	Forsite Limited James Stockman
Brief No. 30	Guysborough County District School Board Marli MacNeil
Brief No. 155	George Haliburton Personal Submission
Brief No. 151	Halifax Board of Trade Neil Roberts
Brief No. 111	Halifax County - Bedford District School Board
Brief No. 171	Halifax District School Board Murray M. Doehler, Chairman
Brief No. 120	Halifax Regional Vocational School Scott Lessel - Staff
Brief No. 170	Halifax - Dartmouth and District Labour Council C.L.C. Fred T. Lutley, President
Brief No. 81	Hants Regional Vocational School Staff
Brief No. 92	Hawker-Siddley Canada Incorporated John Parks
Brief No. 79	Nova Scotia Department of Health J.E.H. Miller, M.D., Deputy Minister
Brief No. 125	Mrs. Sylvia Henshaw Berwick, Nova Scotia Personal Submission

Brief No. 158	Henson College Dalhousie University Dean Doug Myers
Brief No. 118	Homemakers Club Hants East
Brief No. 95	Mary Ellen Hopgood Personal Submission
Brief No. 86	Hotel Association of Metropolitan Halifax Nicholas E. Carson, President
Brief No. 6	Gardner P. Hurley, M.L.A. Cumberland West
Brief No. 63	J. W. Lindsay Enterprises Limited Mr. L. S. Wilson, P.Eng. Vice-Chairman
Brief No. 7	Robert Kennedy Halifax, Nova Scotia <u>Re:</u> "Cable Television" educational network Personal Submission
Brief No. 142	Town of Kentville Mayor W. Phinney
Brief No. 20	Kings County District School Board C. R. Gordon Lowe
Brief No. 21	Kings Regional Vocational School D. F. Corkum, Principal - Staff
Brief No. 141	Nova Scotia Teachers Union (Kings Local) William Wagstaff
Brief No. 162	Nova Scotia Department of Lands and Forests Honourable Ken Streach, Minister
Brief No. 100	Bernie LaRusic Sydney, Nova Scotia Personal Submission

Brief No. 49	Le Forum francais de Yarmouth Michael Clark
Brief No. 53	Local Council of Women, Truro Ruby McSween
Brief No. 25	Philip J. Lucas Liverpool, Nova Scotia Personal Submission
Brief No. 163	Lunenburg County District School Board Audrey Bolivar
Brief No. 124	Lunenburg Economic Development Commission C. John Thorpe, Managing Director
Brief No. 135	Lunenburg Regional Vocational School Gary Ramey - Staff
Brief No. 38	Frank MacCormack Personal Submission
Brief No. 165	Maritime Provinces Higher Education Commission L. H. Durling, Acting Chairman
Brief No. 41	Master's School of Barbering Judy Vaninetti
Brief No. 69	Memorial High School (V.T.A.) Bert Lewis - Staff
Brief No. 34	Metro Council on Continuing Education Lynn Day
Brief No. 18	Micmac Native Learning Centre Jack Potter, Academic Coordinator
Brief No. 96	Edgar Miller, M.A. Halifax, Nova Scotia Personal Submission
Brief No. 116	Nova Scotia Department of Mines and Energy Honourable Joel Matheson, Minister
Brief No. 43	Patricia A. Moore Personal Submission

Brief No. 144	Mount Saint Vincent University Ms. Noami Hersom, President
Brief No. 161	Municipality of the County of Colchester
Brief No. 93	Municipality of the County of Cumberland F. A. Harrison, Chief Administrative Officer
Brief No. 39	Municipality of the District of Lunenburg
Brief No. 55	Municipality of Pictou County H. Dunnewold, Warden
Brief No. 80	Municipality of the District of Yarmouth William R. Scott
Brief No. 131	Nova Scotia Government Employees Union Vic Henrickson Reg Lownie
Brief No. 10	Ralph J. Niessen Barrington, Nova Scotia Personal Submission
Brief No. 50	Nova Scotia Agricultural College H. F. MacRae, Principal
Brief No. 164	Nova Scotia Association of Health Organizations Mr. J. Ingram
Brief No. 60	Nova Scotia Association of Optometrists Mr. J. Lotz, Executive Director
Brief No. 103	Nova Scotia Association of Quantity Surveyors J. Landry
Brief No. 85	Nova Scotia Chamber of Commerce H. E. Lune, Chairman
Brief No. 133	Nova Scotia Chapter of the Canadian Food Service Supervisors Association Keith Rogers, President

Brief No. 157	Nova Scotia Confederation of University Faculty Associations John D'Orsay
Brief No. 119	Nova Scotia Consulting Engineers Association Frank N. Woods, Executive Director
Brief No. 35	Nova Scotia Dental Association D. V. Pamentor, Executive Director
Brief No. 101	Nova Scotia Forest Products Association's Safety and Training Committee Lorne Etter
Brief No. 172	Nova Scotia Institute of Agrologists Dr. D. M. Byers, P. Ag., President
Brief No. 154	Nova Scotia League for Equal Opportunities (LEO) Stacy Campbell, Interim Coordinator
Brief No. 22	Nova Scotia New Democrats John Holm
Brief No. 110	Nova Scotia School Administrators Association Lloyd Gillis
Brief No. 139	Nova Scotia Society of Medical Radiation Technologists Janice Hilton, President
Brief No. 104	Parrsboro and Area Industrial Development Commission Ralph Foster, Executive Director
Brief No. 51	Patrick's Beauty College Patrick Iannetti
Brief No. 68	Picord Bill MacDonald
Brief No. 64	Pictou County Chamber of Commerce Charles Dewey

Brief No. 98	Pictou County Local Art Teachers Association Ms. Rose MacDonald
Brief No. 91	Pictou County Medical Society John W. Stewart, M. D., President
Brief No. 114	Pictou Regional Vocational School Advisory Board Lloyd MacLean
Brief No. 107	Queen's District School Board R. E. Quinn, Supervisor of Curriculum
Brief No. 132	Respiratory Therapy Society of Nova Scotia Janice Taylor
Brief No. 66	Richmond District School Board
Brief No. 19	School Administrators Association Ann Coldwell
Brief No. 130	Nova Scotia School Counsellors Association Chris Campbell, President
Brief No. 1	Scientific Advisory Board and Faculty Committee for Medical Laboratory Technologists Kent C. Dooley
Brief No. 46	Shelburne County District School Board Owen Wheelock
Brief No. 128	Shelburne Regional Vocational School William Sutherland - Staff
Brief No. 152	Social Planning Department City of Halifax Patricia Conrad
Brief No. 17	Society of Certified Engineering Technicians and Technologists of Nova Scotia Doug G. Bach, C.E.T., President

Brief No. 40	Springhill Chamber of Commerce
Brief No. 32	Saint Francis Xavier University Gregory MacKinnon, President
Brief No. 42	Mrs. Charlotte States Personal Submission
Brief No. 148	Strait of Canso Industrial Development Authority (SCIDA) Keith MacDonald, Executive Director
Brief No. 12	Students' Union of Nova Scotia Barney Savage
Brief No. 27	Bruce Taylor Personal Submission
Brief No. 109	Technical University of Nova Scotia (TUNS) J. Clair Callaghan, P.Eng., President
Brief No. 11	J. G. Tillotson Acadia University
Brief No. 127	Ray Toomey Personal Submission
Brief No. 99	D. MacC. Carter, Mayor Town of Truro
Brief No. 71	Truro and District Chamber of Commerce John G. MacDougall
Brief No. 4	Truro Development Corporation Limited Richard L. Provencher
Brief No. 3	Tompkins Institute U.C.C.B. Donald S. Dunbar, Ph.D.
Brief No. 167	Tompkins Institute for Human Values and Technology Marcel Leroy, Ph.D., Director
Brief No. 65	University College of Cape Breton Dr. William Reid, President

Brief No. 2	Nova Scotia Government Employees Union Local 18 Norman Robar, U.C.C.B. (Tech. Campus)
Brief No. 52	S. K. Uberoi Amherst, Nova Scotia Personal Submission
Brief No. 5	United Brotherhood of Carpenters and Joiners of America Brian Cooper
Brief No. 67	Universite Sainte-Anne Dr. Roseann Runte, President
Brief No. 24	Universite Sainte-Anne Housing Society Edward Nickerson Personal Submission
Brief No. 146	Voluntary Planning Board John MacGregor, Sector Coordinator
Brief No. 8	Anthony Weagle South Brookfield, Queen's County Personal Submission
Brief No. 82	James A. Wentzell, Town Clerk Town of Lunenburg
Brief No. 127	Windsor - West Hants Industrial Commission Dr. Dennis Connelly, Chairman
Brief No. 26	Womens' Institutes of Nova Scotia Agricultural College Norma Mosher, President
Brief No. 15	Y.W.C.A. (Halifax) Ms. Janet Willis
Brief No. 160	Town of Yarmouth Honourable Guy LeBlanc
Brief No. 117	Yarmouth Chamber of Commerce Andrew S. Nickerson

Brief No. 45

Yarmouth Community School Council
Denny Morrow

Brief No. 83

Yarmouth District School Board
John Daley, Superintendent

Brief No. 150

Yarmouth Orchestra
Lyndia Davison

Appendix D

RESPONSES TO COMMUNITY COLLEGE DISCUSSION PAPER

1. J. E. Terry
University College of Cape Breton
2. Denny Morrow
Yarmouth District School Board
3. R. L. Foster
Parrsboro & Area Industrial Development Committee
4. J.R.C. Perkin
Acadia University
5. Mary Ellen Hopgood
Personal Submission
6. Edgar Miller, M. A.
Personal Submission
7. Gordon Sabine
Colchester Regional Vocational School
8. Mrs. Sylvia Henshaw
Berwick, Nova Scotia
Personal Submission
9. J. G. Tillotson
Acadia University
10. Judy Vaninetti
Master's School of Barbering
11. Robert Kennedy
Personal Submission
12. H.F. MacRae
Nova Scotia Agriculture College
13. W. D. Sutherland
Shelburne Regional Vocational School
14. Lois Wiseman
Halifax County-Bedford District School Board
15. John Holm, MLA
Nova Scotia New Democrats
16. Bill VanGorder
The YMCA of Nova Scotia

17. **Gordon Michael**
Continuous Learning Association of Nova Scotia
18. **Harold Crowell**
City of Halifax
19. **Janet R. Trefry**
Personal Submission
20. **Bonny Keirstead**
Personal Submission
21. **C.R. Gordon Lowe**
Kings County District School Board
22. **Patricia Brown**
Nova Scotia League for Equal Opportunities
23. **Dave MacNeill (Teacher)**
Annapolis Regional Vocational School
24. **Arthur R. Keeble**
Consolidated Fluid Power Institute
25. **Ralph J. Niessen**
Personal Submission
26. **H. G. Marsh**
Commercial Safety College
27. **Jack MacIssac**
Department of Lands and Forests
28. **Marli MacNeil**
Guysborough County District School Board
29. **Alfred J. Hallisey**
Personal Submission
30. **Mrs. G. Burns**
Staff
31. **Arnold G. Jones**
Atlantic Provinces Special Education Authority
32. **Raymond J. Cole**
Personal Submission
33. **Provincial Youth Advisory Council**
34. **A. Lorraine Berard**
Dartmouth District School Board

35. Joan Brown-Hicks
Canadian Congress for Learning Opportunities for Women
36. J. F. Ingram
Nova Scotia Association of Health Organizations
37. Dr. Thomas J. Gaskell
Northside-Victoria District School Board
38. J. Wightman
Nova Scotia College of Geographic Sciences
39. Frank MacInnis
Canso Regional Vocational School
40. William M. McLane
Pictou Regional Vocational School
41. Rose MacDonald
Pictou County Local Art Teachers Association
42. Professeur D. van der Baaren
Acadia University
43. M. Doreen E. Fraser
Canadian Pensioners Concerned Inc.
44. Paul Gallagher
Vancouver Community College
45. Dr. R. Runte
Universite Sainte-Anne
46. J. Clair Callaghan
Technical University of Nova Scotia
47. Human Resource Sector Voluntary Planning
48. Susan Letson, President
YWCA
49. E. Anne MacRae
The Coordinating Council on Deafness of Nova Scotia
50. Jim Anthony
Staff

51. John Veinot
The Canadian Manufacturers Association
52. The Nova Scotia Teachers Union
53. O. K. MacLean
Litton Systems Canada Limited
54. Daniel N. Paul
The Confederacy of Mainland Micmacs
55. Mrs. Helen Burden
Cumberland Regional Vocational School
(Advisory Committee)
56. H. C. Clark
Dalhousie University
57. T. B. Nickerson
Nova Scotia Research Foundation
58. Dorothy Mason
Parents for a Positive Approach to Learning
59. John Roberts
Cape Breton Adult Vocational Training Centre
60. Greg Blanchard
Nova Scotia Government Employees Union
61. Joseph Landry
Nova Scotia Association of Quantity Surveyors
62. John D'Orsay
Nova Scotia Confederation of University Faculty Association
63. Chris Campbell
Nova Scotia School Counsellors Association
64. Halifax Regional Vocational School
(Advisory Board)
65. Lloyd MacLean
Pictou Regional Vocational School
(Advisory Board)
66. Dartmouth Regional Vocational School
(Advisory Board)

- 67. **Martha Cassidy**
Personal Submission
- 68. **J. Buchanan**
Shelburne Regional Vocational School
(Advisory Board)